

	Dissolved Cali	fornia Title 26	Metals
Lab #: 18708	6	Project#:	16017.01
Client: Acton	Mickelson Environmental	Location:	Former GA-Pacific Sawmill
Field ID:	MW-3.1-052406	Diln Fac:	1.000
Lab ID:	187086-001	Sampled:	05/24/06
Matrix:	Filtrate	Received:	05/25/06
Units:	ug/L	Prepared:	06/06/06

Analyte	Result	RL	Batch# Analyzed	Prep	Analysis
Antimony	ND	1.0	114148 06/08/06	200.8	EPA 6020
Arsenic	ND	1.0	114148 06/08/06	200.8	EPA 6020
Barium	49	1.0	114148 06/08/06	200.8	EPA 6020
Beryllium	ND	1.0	114148 06/08/06	200.8	EPA 6020
Cadmium	ND	1.0	114148 06/08/06	200.8	EPA 6020
Chromium	ND	1.0	114148 06/08/06	200.8	EPA 6020
Cobalt	ND	1.0	114148 06/08/06	200.8	EPA 6020
Copper	ND	1.0	114148 06/08/06	200.8	EPA 6020
Lead	ND	1.0	114148 06/08/06	200.8	EPA 6020
Mercury	ND	0.20	114153 06/06/06	METHOD	EPA 7470A
Molybdenum	ND	1.0	114148 06/08/06	200.8	EPA 6020
Nickel	ND	1.0	114148 06/08/06	200.8	EPA 6020
Selenium	ND	1.0	114148 06/08/06	200.8	EPA 6020
Silver	ND	1.0	114148 06/08/06	200.8	EPA 6020
Thallium	ND	1.0	114148 06/08/06	200.8	EPA 6020
Vanadium	ND	1.0	114148 06/08/06	200.8	EPA 6020
Zinc	3.3	1.0	114148 06/08/06	200.8	EPA 6020



	Dissolved Cal	lfornia Title 26	Metals
Lab #: 18708	36	Project#:	16017.01
Client: Actor	n Mickelson Environmental	Location:	Former GA-Pacific Sawmill
Field ID:	MW-3.8-052406	Diln Fac:	1.000
Lab ID:	187086-002	Sampled:	05/24/06
Matrix:	Filtrate	Received:	05/25/06
Units:	ug/L	Prepared:	06/06/06

Analyte	Result	RL	Batch# Analyzed Prep Analysis
Antimony	ND	1.0	114148 06/08/06 200.8 EPA 6020
Arsenic	ND	1.0	114148 06/08/06 200.8 EPA 6020
Barium	41	1.0	114148 06/08/06 200.8 EPA 6020
Beryllium	ND	1.0	114148 06/08/06 200.8 EPA 6020
Cadmium	ND	1.0	114148 06/08/06 200.8 EPA 6020
Chromium	ND	1.0	114148 06/08/06 200.8 EPA 6020
Cobalt	ND	1.0	114148 06/08/06 200.8 EPA 6020
Copper	ND	1.0	114148 06/08/06 200.8 EPA 6020
Lead	ND	1.0	114148 06/08/06 200.8 EPA 6020
Mercury	ND	0.20	114153 06/06/06 METHOD EPA 7470A
Molybdenum	ND	1.0	114148 06/08/06 200.8 EPA 6020
Nickel	ND	1.0	114148 06/08/06 200.8 EPA 6020
Selenium	ND	1.0	114148 06/08/06 200.8 EPA 6020
Silver	ND	1.0	114148 06/08/06 200.8 EPA 6020
Thallium	ND	1.0	114148 06/08/06 200.8 EPA 6020
Vanadium	ND	1.0	114148 06/08/06 200.8 EPA 6020
Zinc	5.3	1.0	114148 06/08/06 200.8 EPA 6020



	Dissolved Cali	fornia Title 26	Metals
Lab #: 18708	36	Project#:	16017.01
Client: Actor	Mickelson Environmental	Location:	Former GA-Pacific Sawmill
Field ID:	MW-3.10-052406	Diln Fac:	1.000
Lab ID:	187086-003	Sampled:	05/24/06
Matrix:	Filtrate	Received:	05/25/06
Units:	ug/L	Prepared:	06/06/06

Analyte	Result	RL	Batch# Analyzed Pro	ep Analysis
Antimony	ND	1.0	114148 06/08/06 200.8	EPA 6020
Arsenic	ND	1.0	114148 06/08/06 200.8	EPA 6020
Barium	22	1.0	114148 06/08/06 200.8	EPA 6020
Beryllium	ND	1.0	114148 06/08/06 200.8	EPA 6020
Cadmium	ND	1.0	114148 06/08/06 200.8	EPA 6020
Chromium	ND	1.0	114148 06/08/06 200.8	EPA 6020
Cobalt	ND	1.0	114148 06/08/06 200.8	EPA 6020
Copper	ND	1.0	114148 06/08/06 200.8	EPA 6020
Lead	ND	1.0	114148 06/08/06 200.8	EPA 6020
Mercury	ND	0.20	114153 06/06/06 METHOD	EPA 7470A
Molybdenum	ND	1.0	114148 06/08/06 200.8	EPA 6020
Nickel	3.3	1.0	114148 06/08/06 200.8	EPA 6020
Selenium	ND	1.0	114148 06/08/06 200.8	EPA 6020
Silver	ND	1.0	114148 06/08/06 200.8	EPA 6020
Thallium	ND	1.0	114148 06/08/06 200.8	EPA 6020
Vanadium	ND	1.0	114148 06/08/06 200.8	EPA 6020
Zinc	22	1.0	114148 06/08/06 200.8	EPA 6020



	Dissolved Cal:	ifornia Title 26	Metals
Lab #: 18708	6	Project#:	16017.01
Client: Acton	Mickelson Environmental	Location:	Former GA-Pacific Sawmill
Field ID:	MW-3.11-052406	Diln Fac:	1.000
Lab ID:	187086-004	Sampled:	05/24/06
Matrix:	Filtrate	Received:	05/25/06
Units:	ug/L	Prepared:	06/06/06

Analyte	Result	RL	Batch# Analyzed Prep	Analysis
Antimony	ND	1.0	114148 06/08/06 200.8	EPA 6020
Arsenic	ND	1.0	114148 06/08/06 200.8	EPA 6020
Barium	27	1.0	114148 06/08/06 200.8	EPA 6020
Beryllium	ND	1.0	114148 06/08/06 200.8	EPA 6020
Cadmium	ND	1.0	114148 06/08/06 200.8	EPA 6020
Chromium	ND	1.0	114148 06/08/06 200.8	EPA 6020
Cobalt	ND	1.0	114148 06/08/06 200.8	EPA 6020
Copper	ND	1.0	114148 06/08/06 200.8	EPA 6020
Lead	ND	1.0	114148 06/08/06 200.8	EPA 6020
Mercury	ND	0.20	114153 06/06/06 METHOD	EPA 7470A
Molybdenum	ND	1.0	114148 06/08/06 200.8	EPA 6020
Nickel	ND	1.0	114148 06/08/06 200.8	EPA 6020
Selenium	ND	1.0	114148 06/08/06 200.8	EPA 6020
Silver	ND	1.0	114148 06/08/06 200.8	EPA 6020
Thallium	ND	1.0	114148 06/08/06 200.8	EPA 6020
Vanadium	ND	1.0	114148 06/08/06 200.8	EPA 6020
Zinc	7.2	1.0	114148 06/08/06 200.8	EPA 6020



	Dissolved Cali	fornia Title 26	Metals
Lab #: 187086	5	Project#:	16017.01
Client: Acton	Mickelson Environmental	Location:	Former GA-Pacific Sawmill
Field ID:	MW-5.2-052406	Diln Fac:	1.000
Lab ID:	187086-005	Sampled:	05/24/06
Matrix:	Filtrate	Received:	05/25/06
Units:	ug/L	Prepared:	06/06/06

Analyte	Result	RL	Batch# Analyzed	Prep	Analysis
Antimony	ND	1.0	114148 06/08/06	200.8	EPA 6020
Arsenic	2.0	1.0	114148 06/08/06	200.8	EPA 6020
Barium	8.6	1.0	114148 06/08/06	200.8	EPA 6020
Beryllium	ND	1.0	114148 06/08/06	200.8	EPA 6020
Cadmium	ND	1.0	114148 06/08/06	200.8	EPA 6020
Chromium	ND	1.0	114148 06/08/06	200.8	EPA 6020
Cobalt	ND	1.0	114148 06/08/06	200.8	EPA 6020
Copper	ND	1.0	114148 06/08/06	200.8	EPA 6020
Lead	ND	1.0	114148 06/08/06	200.8	EPA 6020
Mercury	ND	0.20	114153 06/06/06	METHOD	EPA 7470A
Molybdenum	ND	1.0	114148 06/08/06	200.8	EPA 6020
Nickel	ND	1.0	114148 06/08/06	200.8	EPA 6020
Selenium	ND	1.0	114148 06/08/06	200.8	EPA 6020
Silver	ND	1.0	114148 06/08/06	200.8	EPA 6020
Thallium	ND	1.0	114148 06/08/06	200.8	EPA 6020
Vanadium	ND	1.0	114148 06/08/06	200.8	EPA 6020
Zinc	5.0	1.0	114148 06/08/06	200.8	EPA 6020



	Dissolved Cali	fornia Title 26	Metals
Lab #: 18708	36	Project#:	16017.01
Client: Actor	n Mickelson Environmental	Location:	Former GA-Pacific Sawmill
Field ID:	MW-5.12-052406	Diln Fac:	1.000
Lab ID:	187086-006	Sampled:	05/24/06
Matrix:	Filtrate	Received:	05/25/06
Units:	ug/L	Prepared:	06/06/06

Analyte	Result	RL	Batch# Analyzed	Prep	Analysis
Antimony	ND	1.0	114148 06/08/06 2	200.8 I	EPA 6020
Arsenic	1.1	1.0	114148 06/09/06 2		EPA 6020
Barium	10	1.0	114148 06/08/06 2	200.8 E	EPA 6020
Beryllium	ND	1.0	114148 06/08/06 2	200.8 E	EPA 6020
Cadmium	ND	1.0	114148 06/08/06 2	200.8 H	EPA 6020
Chromium	1.2	1.0	114148 06/08/06 2	200.8 F	EPA 6020
Cobalt	ND	1.0	114148 06/08/06 2	200.8 F	EPA 6020
Copper	ND	1.0	114148 06/08/06 2	200.8 I	EPA 6020
Lead	ND	1.0	114148 06/08/06 2	200.8 I	EPA 6020
Mercury	ND	0.20	114153 06/06/06 N	METHOD I	EPA 7470A
Molybdenum	ND	1.0	114148 06/08/06 2	200.8 I	EPA 6020
Nickel	ND	1.0	114148 06/08/06 2	200.8 I	EPA 6020
Selenium	ND	1.0	114148 06/08/06 2	200.8 I	EPA 6020
Silver	ND	1.0	114148 06/08/06 2	200.8 I	EPA 6020
Thallium	ND	1.0	114148 06/08/06 2	200.8 I	EPA 6020
Vanadium	1.2	1.0	114148 06/08/06 2	200.8 I	EPA 6020
Zinc	5.9	1.0	114148 06/08/06 2	200.8 I	EPA 6020



	Dissolved Cali	fornia Title 26	Metals
Lab #: 187	7086	Project#:	16017.01
Client: Act	on Mickelson Environmental	Location:	Former GA-Pacific Sawmill
Field ID:	MW-10.1-052406	Diln Fac:	1.000
Lab ID:	187086-007	Sampled:	05/24/06
Matrix:	Filtrate	Received:	05/25/06
Units:	ug/L	Prepared:	06/06/06

Analyte	Result	RL	Batch# Analyzed Prep Analys:	is
Antimony	ND	1.0	114148 06/08/06 200.8 EPA 6020	
Arsenic	ND	1.0	114148 06/08/06 200.8 EPA 6020	
Barium	39	1.0	114148 06/08/06 200.8 EPA 6020	
Beryllium	ND	1.0	114148 06/08/06 200.8 EPA 6020	
Cadmium	ND	1.0	114148 06/08/06 200.8 EPA 6020	
Chromium	ND	1.0	114148 06/08/06 200.8 EPA 6020	
Cobalt	ND	1.0	114148 06/08/06 200.8 EPA 6020	
Copper	ND	1.0	114148 06/08/06 200.8 EPA 6020	
Lead	ND	1.0	114148 06/08/06 200.8 EPA 6020	
Mercury	ND	0.20	114153 06/06/06 METHOD EPA 7470A	
Molybdenum	ND	1.0	114148 06/08/06 200.8 EPA 6020	
Nickel	ND	1.0	114148 06/08/06 200.8 EPA 6020	
Selenium	ND	1.0	114148 06/08/06 200.8 EPA 6020	
Silver	ND	1.0	114148 06/08/06 200.8 EPA 6020	
Thallium	ND	1.0	114148 06/08/06 200.8 EPA 6020	
Vanadium	ND	1.0	114148 06/08/06 200.8 EPA 6020	
Zinc	6.6	1.0	114148 06/08/06 200.8 EPA 6020	



	Dissolved Cali	fornia Title 26	Metals
Lab #: 18708	86	Project#:	16017.01
Client: Actor	n Mickelson Environmental	Location:	Former GA-Pacific Sawmill
Field ID:	DUP-2-052406	Diln Fac:	1.000
Lab ID:	187086-008	Sampled:	05/24/06
Matrix:	Filtrate	Received:	05/25/06
Units:	ug/L	Prepared:	06/06/06

Analyte	Result	RL	Batch# Analyzed	Prep A	nalysis
Antimony	ND	1.0	114148 06/08/06 200	0.8 EPA	6020
Arsenic	ND	1.0	114148 06/08/06 200	0.8 EPA	6020
Barium	39	1.0	114148 06/08/06 200	0.8 EPA	6020
Beryllium	ND	1.0	114148 06/08/06 200	0.8 EPA	6020
Cadmium	ND	1.0	114148 06/08/06 200	0.8 EPA	6020
Chromium	ND	1.0	114148 06/08/06 200	0.8 EPA	6020
Cobalt	ND	1.0	114148 06/08/06 200	0.8 EPA	6020
Copper	ND	1.0	114148 06/08/06 200	0.8 EPA	6020
Lead	ND	1.0	114148 06/08/06 200	0.8 EPA	6020
Mercury	ND	0.20	114153 06/06/06 MET	THOD EPA	7470A
Molybdenum	ND	1.0	114148 06/08/06 200	0.8 EPA	6020
Nickel	ND	1.0	114148 06/08/06 200	0.8 EPA	6020
Selenium	ND	1.0	114148 06/08/06 200	0.8 EPA	6020
Silver	ND	1.0	114148 06/08/06 200	0.8 EPA	6020
Thallium	ND	1.0	114148 06/08/06 200	0.8 EPA	6020
Vanadium	ND	1.0	114148 06/08/06 200	0.8 EPA	6020
Zinc	3.8	1.0	114148 06/08/06 200	0.8 EPA	6020



	Dissolved Cali	fornia Title 26	Metals
Lab #: 18708	6	Project#:	16017.01
Client: Acton	Mickelson Environmental	Location:	Former GA-Pacific Sawmill
Field ID:	DUP-4-052406	Diln Fac:	1.000
Lab ID:	187086-009	Sampled:	05/24/06
Matrix:	Filtrate	Received:	05/25/06
Units:	ug/L	Prepared:	06/06/06

Analyte	Result	RL	Batch# Analyzed	Prep	Analysis
Antimony	ND	1.0	114148 06/08/06	200.8	EPA 6020
Arsenic	1.4	1.0	114148 06/08/06	200.8	EPA 6020
Barium	10	1.0	114148 06/08/06	200.8	EPA 6020
Beryllium	ND	1.0	114148 06/08/06	200.8	EPA 6020
Cadmium	ND	1.0	114148 06/08/06	200.8	EPA 6020
Chromium	1.3	1.0	114148 06/08/06	200.8	EPA 6020
Cobalt	ND	1.0	114148 06/08/06	200.8	EPA 6020
Copper	ND	1.0	114148 06/08/06	200.8	EPA 6020
Lead	ND	1.0	114148 06/08/06	200.8	EPA 6020
Mercury	ND	0.20	114153 06/06/06	METHOD	EPA 7470A
Molybdenum	ND	1.0	114148 06/08/06	200.8	EPA 6020
Nickel	ND	1.0	114148 06/08/06	200.8	EPA 6020
Selenium	ND	1.0	114148 06/08/06	200.8	EPA 6020
Silver	ND	1.0	114148 06/08/06	200.8	EPA 6020
Thallium	ND	1.0	114148 06/08/06	200.8	EPA 6020
Vanadium	1.3	1.0	114148 06/08/06	200.8	EPA 6020
Zinc	18	1.0	114148 06/08/06	200.8	EPA 6020



Dissolved California Title 26 Metals						
Lab #:	187086	Location:	Former GA-Pacific Sawmill			
Client:	Acton Mickelson Environmental	Prep:	200.8			
Project#:	16017.01	Analysis:	EPA 6020			
Type:	BLANK	Diln Fac:	1.000			
Lab ID:	QC342878	Batch#:	114148			
Matrix:	Filtrate	Prepared:	06/06/06			
Units:	ug/L					

Analyte	Result	RL	Analyzed
Antimony	ND	1.0	06/08/06
Arsenic	ND	1.0	06/08/06
Barium	ND	1.0	06/08/06
Beryllium	ND	1.0	06/08/06
Cadmium	ND	1.0	06/08/06
Chromium	ND	1.0	06/08/06
Cobalt	ND	1.0	06/08/06
Copper	ND	1.0	06/08/06
Lead	ND	1.0	06/08/06
Molybdenum	ND	1.0	06/08/06
Nickel	ND	1.0	06/08/06
Selenium	ND	1.0	06/08/06
Silver	ND	1.0	06/08/06
Thallium	ND	1.0	06/08/06
Vanadium	ND	1.0	06/08/06
Zinc	ND	1.0	06/09/06



Dissolved California Title 26 Metals						
Lab #:	187086	Location:	Former GA-Pacific Sawmill			
Client:	Acton Mickelson Environmental	Prep:	METHOD			
Project#:	16017.01	Analysis:	EPA 7470A			
Analyte:	Mercury	Diln Fac:	1.000			
Type:	BLANK	Batch#:	114153			
Lab ID:	QC342900	Prepared:	06/06/06			
Matrix:	Filtrate	Analyzed:	06/06/06			
Units:	ug/L					

Result	RL	
ND	0.20	



Datell ge	Dissol	ved California Title 26	5 Metals
Lab #:	187086	Location:	Former GA-Pacific Sawmill
Client: Project#:	Acton Mickelson Environ 16017.01	Analysis:	200.8 EPA 6020
Matrix: Units: Diln Fac:	Filtrate ug/L 1.000	Batch#: Prepared: Analyzed:	06/06/06 06/08/06

Type:

BS

Lab ID:

QC342879

Analyte	Spiked	Result	%REC	Limits
Antimony	100.0	98.06	98	80-120
Arsenic	100.0	96.46	96	80-120
Barium	100.0	95.84	96	80-120
Beryllium	100.0	100.3	100	80-120
Cadmium	100.0	98.91	99	80-120
Chromium	100.0	92.25	92	80-120
Cobalt	100.0	92.66	93	80-120
Copper	100.0	100.9	101	80-120
Lead	100.0	98.85	99	80-120
Molybdenum	100.0	96.00	96	80-120
Nickel	100.0	98.32	98	80-120
Selenium	100.0	91.60	92	80-120
Silver	100.0	99.30	99	80-120
Thallium	100.0	85.55	86	80-120
Vanadium	100.0	89.63	90	80-120
Zinc	100.0	98.63	99	80-120

Type:

BSD

Lab ID:

QC342880

Analyte	Spiked	Result	%RE(RPI) Lim
Antimony	100.0	100.8	101	80-120	3	20
Arsenic	100.0	99.22	99	80-120	3	20
Barium	100.0	98.53	99	80-120	3	20
Beryllium	100.0	104.8	105	80-120	4	20
Cadmium	100.0	100.9	101	80-120	2	20
Chromium	100.0	94.54	95	80-120	2	20
Cobalt	100.0	95.08	95	80-120	3	20
Copper	100.0	102.4	102	80-120	1	20
Lead	100.0	102.3	102	80-120	3	20
Molybdenum	100.0	98.24	98	80-120	2	20
Nickel	100.0	100.9	101	80-120	3	20
Selenium	100.0	94.71	95	80-120	3	20
Silver	100.0	102.0	102	80-120	3	20
Thallium	100.0	89.66	90	80-120	5	20
Vanadium	100.0	91.65	92	80-120	2	20
Zinc	100.0	100.4	100	80-120	2	20



	Dissolved Calif	ornia Title 26	
Lab #: 187	086	Location:	Former GA-Pacific Sawmill
Client: Act	on Mickelson Environmental	Prep:	200.8
Project#: 160	17.01	Analysis:	EPA 6020
Field ID:	MW-3.1-052406	Batch#:	114148
MSS Lab ID:	187086-001	Sampled:	05/24/06
Matrix:	Filtrate	Received:	05/25/06
Units:	ug/L	Prepared:	06/06/06
Diln Fac:	1.000	Analyzed:	06/08/06

Type:

MS

Lab ID:

QC342881

Analyte	MSS Result	Spiked	Result	%REC	Limits
Antimony	0.1052	100.0	101.4	101	80-120
Arsenic	<0.6516	100.0	96.14	96	80-120
Barium	49.32	100.0	147.4	98	75-126
Beryllium	<0.05514	100.0	104.2	104	80-120
Cadmium	<0.1409	100.0	95.42	95	76-120
Chromium	0.4227	100.0	90.24	90	78-120
Cobalt	0.7120	100.0	90.60	90	80-120
Copper	<0.3124	100.0	96.95	97	80-120
Lead	<0.2399	100.0	101.9	102	80-120
Molybdenum	0.2381	100.0	94.49	94	80-120
Nickel	0.4148	100.0	94.90	94	77-120
Selenium	< 0.3462	100.0	90.11	90	65-120
Silver	<0.04084	100.0	96.08	96	73-120
Thallium	0.6734	100.0	86.15	85	64-120
Vanadium	0.4516	100.0	88.33	88	78-122
Zinc	3.297	100.0	96.37	93	60-124

Type:

MSD

Lab ID:

QC342882

Analyte	Spiked	Result	%REC	Limits	RPI) Lim
Antimony	100.0	99.85	100	80-120	2	20
Arsenic	100.0	95.44	95	80-120	1	20
Barium	100.0	145.5	96	75-126	1	20
Beryllium	100.0	103.5	104	80-120	1	20
Cadmium	100.0	95.40	95	76-120	0	20
Chromium	100.0	89.79	89	78-120	0	20
Cobalt	100.0	90.07	89	80-120	1	20
Copper	100.0	96.50	97	80-120	0	20
Lead	100.0	99.56	100	80-120	2	20
Molybdenum	100.0	93.32	93	80-120	1	20
Nickel	100.0	95.43	95	77-120	1	20
Selenium	100.0	88.38	88	65-120	2	20
Silver	100.0	95.23	95	73-120	1	20
Thallium	100.0	86.52	86	64-120	0	20
Vanadium	100.0	87.99	88	78-122	0	20
Zinc	100.0	95.57	92	60-124	1	20



	Dissolved Cali:	fornia Title 26	Metals
Lab #:	187086	Location:	Former GA-Pacific Sawmill
Client:	Acton Mickelson Environmental	Prep:	METHOD
Project#:	16017.01	Analysis:	EPA 7470A
Analyte:	Mercury	Batch#:	114153
Matrix:	Filtrate	Prepared:	06/06/06
Units:	ug/L	Analyzed:	06/06/06
Diln Fac:	1.000		

Type	Lab ID	Spiked	Result	~ D H ('	Limits	RPD	Lim
BS	QC342903	5.000	5.510	110	80-120		
BSD	QC342904	5.000	5.390	108	80-120	2	20



	Dissolved Cali	Fornia Title 26	5 Metals
Lab #: 1870	086	Location:	Former GA-Pacific Sawmill
Client: Acto	on Mickelson Environmental	Prep:	METHOD
Project#: 1601	17.01	Analysis:	EPA 7470A
Analyte:	Mercury	Batch#:	114153
Field ID:	MW-3.1-052406	Sampled:	05/24/06
MSS Lab ID:	187086-001	Received:	05/25/06
Matrix:	Filtrate	Prepared:	06/06/06
Units:	ug/L	Analyzed:	06/06/06
Diln Fac:	1.000		

Type	e Lab ID	MSS Result	Spiked	Result	%REC	2 Limits	RPD	Lim
MS	QC342905	<0.05753	5.000	5.390	108	74-125		
MSD	QC342906		5.000	5.380	108	74-125	0	20



	Total Volatile Hydrocarbons						
	186894 Acton Mickelson Environmental	Location: Prep:	Ft Bragg-Site Assessment EPA 5030B				
Project#:		Analysis:	EPA 8015B				
Matrix:	Water	Sampled:	05/17/06				
Units:	ug/L	Received:	05/18/06				
Diln Fac:	1.000	Analyzed:	05/20/06				
Batch#:	113636						

Field ID: SP-1.1-051706 SAMPLE Lab ID: 186894-001

Type:

Analyte	Result	RL	
Gasoline C6-C8	ND	50	
Gasoline C8-C10	ND	50	

Surrogate	%REC	Limits
Trifluorotoluene (FID)	101	69-137
Bromofluorobenzene (FID)	107	80-133

Field ID: SP-1.1-051706TB59 Lab ID: 186894-002

Type: SAMPLE

Analyte	Result	RL	
Gasoline C6-C8	ND	50	
Gasoline C8-C10	ND	50	

Surrogate	%REC	Limits
Trifluorotoluene (FID)	99	69-137
Bromofluorobenzene (FID)	104	80-133

SP-10.1-051706 Lab ID: 186894-003 Field ID:

Type: SAMPLE

Analyte	Result	RL	
Gasoline C6-C8	ND	50	
Gasoline C8-C10	ND	50	

Surrogate	%REC	Limits
Trifluorotoluene (FID)	99	69-137
Bromofluorobenzene (FID)	107	80-133

Lab ID: QC340846 Type: BLANK

Analyte	Result	RL	
Gasoline C6-C8	ND	50	
Gasoline C8-C10	ND	50	

Surrogate	%REC	Limits	
Trifluorotoluene (FID)	97	69-137	
Bromofluorobenzene (FID)	99	80-133	

ND= Not Detected RL= Reporting Limit



Total Extractable Hydrocarbons					
Lab #: Client:	186894 Acton Mickelson Environmental	Location:	Ft Bragg-Site Assessment EPA 3520C		
Project#:	16017.08	Prep: Analysis:	EPA 8015B		
Matrix:	Water	Sampled:	05/17/06		
Units:	ug/L	Received:	05/18/06		
Diln Fac:	1.000	Prepared:	05/22/06		
Batch#:	113681	_			

SP-1.1-051706 SAMPLE Analyzed: 05/24/06 Cleanup Method: EPA 3630C Field ID: Type: Lab ID: 186894-001

Analyte Result RL Diesel C10-C12 50 Diesel C12-C16
Diesel C16-C24
Motor Oil C24-C36 50 ND ND 50 300 ND

Surrogate	%REC	Limits
Hexacosane	93	65-130

Analyzed: 05/24/06 Cleanup Method: EPA 3630C Field ID: SP-10.1-051706 Type: Lab ID: SAMPLE

186894-003

Analyte	Result	RL	
Diesel C10-C12	ND	50	
Diesel C12-C16	ND	50	
Diesel C16-C24	ND	50	
Motor Oil C24-C36	ND	300	

Surrogate	%REC	Limits
Hexacosane	93	65-130

Analyzed: 05/25/06 Cleanup Method: EPA 3630C Type: Lab ID: BLANK QC341022

Analyte	Result	RL	
Diesel C10-C12	ND	50	
Diesel C12-C16	ND	50	
Diesel C16-C24	ND	50	
Motor Oil C24-C36	ND	300	

Surrogate	%REC	Limits
Hexacosane	92	65-130

ND= Not Detected RL= Reporting Limit Page 1 of 1



Purgeable Organics by GC/MS					
Lab #:	186894	Location:	Ft Bragg-Site Assessment		
Client:	Acton Mickelson Environmental	Prep:	EPA 5030B		
Project#:	16017.08	Analysis:	EPA 8260B		
Field ID:	SP-1.1-051706	Batch#:	113676		
Lab ID:	186894-001	Sampled:	05/17/06		
Matrix:	Water	Received:	05/18/06		
Units:	ug/L	Analyzed:	05/22/06		
Diln Fac:	1.000				

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Ethanol	ND	1,000
Isopropanol	ND	100
Acetone	ND	10
Freon 113	ND	0.5
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND ND	0.5
Bromochloromethane	ND ND	0.5
1,1,1-Trichloroethane	ND ND	0.5
1,1-Dichloropropene	ND ND	0.5
Carbon Tetrachloride	ND ND	0.5
1,2-Dichloroethane	ND ND	0.5
Benzene	ND ND	0.5
Trichloroethene	ND ND	0.5
1,2-Dichloropropane	ND ND	0.5
Bromodichloromethane	ND ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5

ND= Not Detected RL= Reporting Limit Page 1 of 2



Purgeable Organics by GC/MS					
Lab #:	186894	Location:	Ft Bragg-Site Assessment		
Client:	Acton Mickelson Environmental	Prep:	EPA 5030B		
Project#:	16017.08	Analysis:	EPA 8260B		
Field ID:	SP-1.1-051706	Batch#:	113676		
Lab ID:	186894-001	Sampled:	05/17/06		
Matrix:	Water	Received:	05/18/06		
Units:	ug/L	Analyzed:	05/22/06		
Diln Fac:	1.000	-			

Analyte	Result	RL	
2-Chlorotoluene	ND	0.5	
4-Chlorotoluene	ND	0.5	
tert-Butylbenzene	ND	0.5	
1,2,4-Trimethylbenzene	ND	0.5	
sec-Butylbenzene	ND	0.5	
para-Isopropyl Toluene	ND	0.5	
1,3-Dichlorobenzene	ND	0.5	
1,4-Dichlorobenzene	ND	0.5	
n-Butylbenzene	ND	0.5	
1,2-Dichlorobenzene	ND	0.5	
1,2-Dibromo-3-Chloropropane	ND	2.0	
1,2,4-Trichlorobenzene	ND	0.5	
Hexachlorobutadiene	ND	0.5	
Naphthalene	ND	2.0	
1,2,3-Trichlorobenzene	ND	0.5	

Surrogate	%REC	Limits
Dibromofluoromethane 11	14	80-120
1,2-Dichloroethane-d4	30	80-130
Toluene-d8	02	80-120
Bromofluorobenzene 11	18	80-122



Purgeable Organics by GC/MS					
Lab #:	186894	Location:	Ft Bragg-Site Assessment		
Client:	Acton Mickelson Environmental	Prep:	EPA 5030B		
Project#:	16017.08	Analysis:	EPA 8260B		
Field ID:	SP-1.1-051706TB59	Batch#:	113676		
Lab ID:	186894-002	Sampled:	05/17/06		
Matrix:	Water	Received:	05/18/06		
Units:	ug/L	Analyzed:	05/22/06		
Diln Fac:	1.000				

Analyte	Result	RL	
Freon 12	ND	1.0	
Chloromethane	ND	1.0	
Vinyl Chloride	ND	0.5	
Bromomethane	ND	1.0	
Chloroethane	ND	1.0	
Trichlorofluoromethane	ND	1.0	
Ethanol	ND	1,000	
Isopropanol	ND	100	
Acetone	ND	10	
Freon 113	ND	0.5	
1,1-Dichloroethene	ND	0.5	
Methylene Chloride	ND	10	
Carbon Disulfide	ND	0.5	
MTBE	ND	0.5	
trans-1,2-Dichloroethene	ND	0.5	
Vinyl Acetate	ND	10	
1,1-Dichloroethane	ND	0.5	
2-Butanone	ND	10	
cis-1,2-Dichloroethene	ND	0.5	
2,2-Dichloropropane	ND	0.5	
Chloroform	ND	0.5	
Bromochloromethane	ND	0.5	
1,1,1-Trichloroethane	ND	0.5	
1,1-Dichloropropene	ND	0.5	
Carbon Tetrachloride	ND	0.5	
1,2-Dichloroethane	ND	0.5	
Benzene	ND	0.5	
Trichloroethene	ND	0.5	
1,2-Dichloropropane	ND	0.5	
Bromodichloromethane	ND	0.5	
Dibromomethane	ND	0.5	
4-Methyl-2-Pentanone	ND	10	
cis-1,3-Dichloropropene	ND	0.5	
Toluene	ND	0.5	
trans-1,3-Dichloropropene	ND	0.5	
1,1,2-Trichloroethane	ND	0.5	
2-Hexanone	ND	10	
1,3-Dichloropropane	ND	0.5	
Tetrachloroethene	ND	0.5	
Dibromochloromethane	ND	0.5	
1,2-Dibromoethane	ND	0.5	
Chlorobenzene	ND	0.5	
1,1,1,2-Tetrachloroethane	ND	0.5	
Ethylbenzene	ND	0.5	
m,p-Xylenes	ND	0.5	
o-Xylene	ND	0.5	
Styrene	ND	0.5	
Bromoform	ND	1.0	
Isopropylbenzene	ND	0.5	
1,1,2,2-Tetrachloroethane	ND	0.5	
1,2,3-Trichloropropane	ND	0.5	
Propylbenzene	ND	0.5	
Bromobenzene	ND	0.5	
1,3,5-Trimethylbenzene	ND	0.5	

ND= Not Detected RL= Reporting Limit Page 1 of 2



Purgeable Organics by GC/MS					
Lab #:	186894	Location:	Ft Bragg-Site Assessment		
Client:	Acton Mickelson Environmental	Prep:	EPA 5030B		
Project#:	16017.08	Analysis:	EPA 8260B		
Field ID:	SP-1.1-051706TB59	Batch#:	113676		
Lab ID:	186894-002	Sampled:	05/17/06		
Matrix:	Water	Received:	05/18/06		
Units:	ug/L	Analyzed:	05/22/06		
Diln Fac:	1.000	-			

Analyte	Result	RL	
2-Chlorotoluene	ND	0.5	
4-Chlorotoluene	ND	0.5	
tert-Butylbenzene	ND	0.5	
1,2,4-Trimethylbenzene	ND	0.5	
sec-Butylbenzene	ND	0.5	
para-Isopropyl Toluene	ND	0.5	
1,3-Dichlorobenzene	ND	0.5	
1,4-Dichlorobenzene	ND	0.5	
n-Butylbenzene	ND	0.5	
1,2-Dichlorobenzene	ND	0.5	
1,2-Dibromo-3-Chloropropane	ND	2.0	
1,2,4-Trichlorobenzene	ND	0.5	
Hexachlorobutadiene	ND	0.5	
Naphthalene	ND	2.0	
1,2,3-Trichlorobenzene	ND	0.5	

Surrogate %RE	. Limi	its
Dibromofluoromethane 106	80-1	120
1,2-Dichloroethane-d4 115	80-1	130
Toluene-d8 100	80-1	120
Bromofluorobenzene 112	80-1	122

6.0



Purgeable Organics by GC/MS					
Lab #:	186894	Location:	Ft Bragg-Site Assessment		
Client:	Acton Mickelson Environmental	Prep:	EPA 5030B		
Project#:	16017.08	Analysis:	EPA 8260B		
Field ID:	SP-10.1-051706	Batch#:	113676		
Lab ID:	186894-003	Sampled:	05/17/06		
Matrix:	Water	Received:	05/18/06		
Units:	ug/L	Analyzed:	05/22/06		
Diln Fac:	1.000				

Analyte	Result	RL	
Freon 12	ND	1.0	
Chloromethane	ND	1.0	
Vinyl Chloride	ND	0.5	
Bromomethane	ND	1.0	
Chloroethane	ND	1.0	
Trichlorofluoromethane	ND	1.0	
Ethanol	ND	1,000	
Isopropanol	ND	100	
Acetone	ND	10	
Freon 113	ND	0.5	
1,1-Dichloroethene	ND	0.5	
Methylene Chloride	ND	10	
Carbon Disulfide	ND	0.5	
MTBE	ND	0.5	
trans-1,2-Dichloroethene	ND	0.5	
Vinyl Acetate	ND	10	
1,1-Dichloroethane	ND	0.5	
2-Butanone	ND	10	
cis-1,2-Dichloroethene	ND	0.5	
2,2-Dichloropropane	ND	0.5	
Chloroform	ND	0.5	
Bromochloromethane	ND	0.5	
1,1,1-Trichloroethane	ND	0.5	
1,1-Dichloropropene	ND	0.5	
Carbon Tetrachloride	ND	0.5	
1,2-Dichloroethane	ND	0.5	
Benzene	ND	0.5	
Trichloroethene	ND	0.5	
1,2-Dichloropropane	ND	0.5	
Bromodichloromethane	ND	0.5	
Dibromomethane	ND	0.5	
4-Methyl-2-Pentanone	ND	10	
	ND ND	0.5	
cis-1,3-Dichloropropene Toluene	ND	0.5	
trans-1,3-Dichloropropene	ND	0.5	
1,1,2-Trichloroethane	ND	0.5	
2-Hexanone	ND ND	10	
	ND	0.5	
1,3-Dichloropropane Tetrachloroethene	ND ND	0.5	
	ND ND	0.5	
Dibromochloromethane	ND ND	0.5	
1,2-Dibromoethane		0.5	
Chlorobenzene	ND	0.5	
1,1,1,2-Tetrachloroethane	ND	0.5	
Ethylbenzene	ND	U. 5	
m,p-Xylenes	ND ND	0.5	l
o-Xylene	ND ND	0.5	l
Styrene	ND ND	0.5	l
Bromoform	ND ND	1.0	
Isopropylbenzene	ND	0.5	
1,1,2,2-Tetrachloroethane	ND	0.5	
1,2,3-Trichloropropane	ND	0.5	
Propylbenzene	ND	0.5	
Bromobenzene	ND	0.5	

^{*=} Value outside of QC limits; see narrative
ND= Not Detected
RL= Reporting Limit
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Purgeable Organics by GC/MS					
Lab #:	186894	Location:	Ft Bragg-Site Assessment		
Client:	Acton Mickelson Environmental	Prep:	EPA 5030B		
Project#:	16017.08	Analysis:	EPA 8260B		
Field ID:	SP-10.1-051706	Batch#:	113676		
Lab ID:	186894-003	Sampled:	05/17/06		
Matrix:	Water	Received:	05/18/06		
Units:	uq/L	Analyzed:	05/22/06		
Diln Fac:	1.000				

Analyte	Result	RL	
1,3,5-Trimethylbenzene	ND	0.5	
2-Chlorotoluene	ND	0.5	
4-Chlorotoluene	ND	0.5	
tert-Butylbenzene	ND	0.5	
1,2,4-Trimethylbenzene	ND	0.5	
sec-Butylbenzene	ND	0.5	
para-Isopropyl Toluene	ND	0.5	
1,3-Dichlorobenzene	ND	0.5	
1,4-Dichlorobenzene	ND	0.5	
n-Butylbenzene	ND	0.5	
1,2-Dichlorobenzene	ND	0.5	
1,2-Dibromo-3-Chloropropane	ND	2.0	
1,2,4-Trichlorobenzene	ND	0.5	
Hexachlorobutadiene	ND	0.5	
Naphthalene	ND	2.0	
1,2,3-Trichlorobenzene	ND	0.5	

Surrogate	%REC	Limits	
Dibromofluoromethane	113	80-120	
1,2-Dichloroethane-d4	132 *	80-130	
Toluene-d8	105	80-120	
Bromofluorobenzene	117	80-122	

^{*=} Value outside of QC limits; see narrative
ND= Not Detected
RL= Reporting Limit
Page 2 of 2



Polychlorinated Biphenyl Congeners				
Lab #:	186894	Location:	Ft Bragg-Site Assessment	
Client:	Acton Mickelson Environmental	Prep:	EPA 3520C	
Project#:	16017.08	Analysis:	EPA 8082	
Field ID:	SP-1.1-051706	Batch#:	113730	
Lab ID:	186894-001	Sampled:	05/17/06	
Matrix:	Water	Received:	05/18/06	
Units:	ug/L	Prepared:	05/23/06	
Diln Fac:	1.000	Analyzed:	05/28/06	

Cleanup Method: EPA 3665A

Analyte	Result	RL	MDL
BZ# 8	ND	0.048	0.010
BZ# 18	ND	0.048	0.012
BZ# 28	ND	0.048	0.0099
BZ# 52	ND	0.048	0.010
BZ# 44	ND	0.048	0.0088
BZ# 66	ND	0.048	0.0082
BZ# 101	ND	0.048	0.0095
BZ# 81	ND	0.048	0.0086
BZ# 77	ND	0.048	0.012
BZ# 123	ND	0.048	0.0079
BZ# 118	ND	0.048	0.0092
BZ# 114	ND	0.048	0.0093
BZ# 153	ND	0.048	0.011
BZ# 105	ND	0.048	0.0081
BZ# 138	ND	0.048	0.0096
BZ# 187	ND	0.048	0.0080
BZ# 126	ND	0.048	0.0087
BZ# 128	ND	0.048	0.0081
BZ# 167	ND	0.048	0.0094
BZ# 156	ND #	0.048	0.0088
BZ# 157	ND	0.048	0.0081
BZ# 180	ND	0.048	0.0073
BZ# 170	ND #	0.048	0.0080
BZ# 169	ND #	0.048	0.0084
BZ# 189	ND #	0.048	0.0089
BZ# 195	ND	0.048	0.0091
BZ# 206	ND #	0.048	0.0088
BZ# 209	ND #	0.048	0.0082

Surrogate	%REC	Limits
TCMX	80	37-140
BZ# 205	80	37-140

^{#=} CCV drift outside limits; average CCV drift within limits per method requirements

ND= Not Detected

RL= Reporting Limit

MDL= Method Detection Limit



	Polychlorinated	d Biphenyl Cor	ngeners
Lab #:	186894	Location:	Ft Bragg-Site Assessment
Client:	Acton Mickelson Environmental	Prep:	EPA 3520C
Project#:	16017.08	Analysis:	EPA 8082
Field ID:	SP-10.1-051706	Batch#:	113730
Lab ID:	186894-003	Sampled:	05/17/06
Matrix:	Water	Received:	05/18/06
Units:	ug/L	Prepared:	05/23/06
Diln Fac:	1.000	Analyzed:	05/28/06

Cleanup Method: EPA 3665A

Analyte	Result	RL	MDL
BZ# 8	ND	0.048	0.010
BZ# 18	ND	0.048	0.012
BZ# 28	ND	0.048	0.0099
BZ# 52	ND	0.048	0.010
BZ# 44	ND	0.048	0.0088
BZ# 66	ND	0.048	0.0082
BZ# 101	ND	0.048	0.0095
BZ# 81	ND	0.048	0.0086
BZ# 77	ND	0.048	0.012
BZ# 123	ND	0.048	0.0079
BZ# 118	ND	0.048	0.0092
BZ# 114	ND	0.048	0.0093
BZ# 153	ND	0.048	0.011
BZ# 105	ND	0.048	0.0081
BZ# 138	ND	0.048	0.0096
BZ# 187	ND	0.048	0.0080
BZ# 126	ND	0.048	0.0087
BZ# 128	ND	0.048	0.0081
BZ# 167	ND	0.048	0.0094
BZ# 156	ND #	0.048	0.0088
BZ# 157	ND	0.048	0.0081
BZ# 180	ND	0.048	0.0073
BZ# 170	ND #	0.048	0.0080
BZ# 169	ND #	0.048	0.0084
BZ# 189	ND #	0.048	0.0089
BZ# 195	ND	0.048	0.0091
BZ# 206	ND #	0.048	0.0088
BZ# 209	ND #	0.048	0.0082

Surrogate	%REC	Limits
TCMX	76	37-140
BZ# 205	87	37-140

^{#=} CCV drift outside limits; average CCV drift within limits per method requirements

ND= Not Detected

RL= Reporting Limit

MDL= Method Detection Limit



Polynuclear Aromatics by HPLC				
Lab #:	186894	Location:	Ft Bragg-Site Assessment	
Client:	Acton Mickelson Environmental	Prep:	EPA 3520C	
Project#:	16017.08	Analysis:	EPA 8310	
Field ID:	SP-1.1-051706	Batch#:	113727	
Lab ID:	186894-001	Sampled:	05/17/06	
Matrix:	Water	Received:	05/18/06	
Units:	ug/L	Prepared:	05/23/06	
Diln Fac:	1.000	Analyzed:	05/24/06	

Analyte	Result	RL	MDL
Naphthalene	ND	0.95	0.09
Acenaphthylene	ND	1.9	0.23
Acenaphthene	ND	0.95	0.31
Fluorene	ND	0.19	0.03
Phenanthrene	ND	0.10	0.007
Anthracene	ND	0.10	0.02
Fluoranthene	ND	0.19	0.01
Pyrene	ND	0.10	0.01
Benzo(a)anthracene	ND	0.10	0.01
Chrysene	ND	0.10	0.009
Benzo(b)fluoranthene	ND	0.19	0.01
Benzo(k)fluoranthene	ND	0.10	0.008
Benzo(a)pyrene	ND	0.10	0.02
Dibenz(a,h)anthracene	ND	0.19	0.02
Benzo(g,h,i)perylene	ND	0.19	0.02
Indeno(1,2,3-cd)pyrene	ND	0.10	0.009

Surrogate	%REC	Limits
1-Methylnaphthalene (UV)	94	65-120
1-Methylnaphthalene (F)	96	65-120

ND= Not Detected

RL= Reporting Limit

MDL= Method Detection Limit



Polynuclear Aromatics by HPLC				
Lab #:	186894	Location:	Ft Bragg-Site Assessment	
Client:	Acton Mickelson Environmental	Prep:	EPA 3520C	
Project#:	16017.08	Analysis:	EPA 8310	
Field ID:	SP-10.1-051706	Batch#:	113727	
Lab ID:	186894-003	Sampled:	05/17/06	
Matrix:	Water	Received:	05/18/06	
Units:	ug/L	Prepared:	05/23/06	
Diln Fac:	1.000	Analyzed:	05/24/06	

Analyte	Result	RL	MDL
Naphthalene	ND	0.95	0.09
Acenaphthylene	ND	1.9	0.23
Acenaphthene	ND	0.95	0.31
Fluorene	ND	0.19	0.03
Phenanthrene	ND	0.10	0.007
Anthracene	ND	0.10	0.02
Fluoranthene	ND	0.19	0.01
Pyrene	ND	0.10	0.01
Benzo(a)anthracene	ND	0.10	0.01
Chrysene	ND	0.10	0.009
Benzo(b)fluoranthene	ND	0.19	0.01
Benzo(k)fluoranthene	ND	0.10	0.008
Benzo(a)pyrene	ND	0.10	0.02
Dibenz(a,h)anthracene	ND	0.19	0.02
Benzo(g,h,i)perylene	ND	0.19	0.02
Indeno(1,2,3-cd)pyrene	ND	0.10	0.009

Surrogate	%REC	Limits
1-Methylnaphthalene (UV)	92	65-120
1-Methylnaphthalene (F)	94	65-120

ND= Not Detected

RL= Reporting Limit

MDL= Method Detection Limit



	Dissolved California Title 26 Metals					
Lab #: 18689	4	Project#:	16017.08			
Client: Acton	Mickelson Environmental	Location:	Ft Bragg-Site Assessment			
Field ID:	SP-1.1-051706	Diln Fac:	1.000			
Lab ID:	186894-001	Sampled:	05/17/06			
Matrix:	Filtrate	Received:	05/18/06			
Units:	ug/L					

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Arsenic	ND	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Barium	22	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Beryllium	ND	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Cadmium	ND	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Chromium	2.1	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Cobalt	ND	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Copper	ND	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Lead	ND	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Mercury	ND	0.20	113910	05/30/06	05/30/06	METHOD	EPA 7470A
Molybdenum	ND	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Nickel	ND	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Selenium	ND	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Silver	ND	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Thallium	ND	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Vanadium	11	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Zinc	3.6	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020

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	Dissolved California Title 26 Metals				
Lab #: 186894		Project#:	16017.08		
Client: Acton Mi	ckelson Environmental	Location:	Ft Bragg-Site Assessment		
Field ID:	SP-10.1-051706	Diln Fac:	1.000		
Lab ID:	186894-003	Sampled:	05/17/06		
Matrix:	Filtrate	Received:	05/18/06		
Units:	ug/L				

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Arsenic	ND	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Barium	82	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Beryllium	ND	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Cadmium	ND	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Chromium	2.1	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Cobalt	ND	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Copper	ND	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Lead	ND	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Mercury	ND	0.20	113910	05/30/06	05/30/06	METHOD	EPA 7470A
Molybdenum	ND	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Nickel	ND	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Selenium	ND	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Silver	ND	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Thallium	ND	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Vanadium	NA						
Zinc	3.5	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020

ND= Not Detected

RL= Reporting Limit

	,	ı	77.8.181	And	9.c	Sea 1/4
Acton Mickelson •	Mickelson • Environmental,	lnc.⊠ ∘	lard TAT	Page of	Chain of Custody	
Chain of Custody and Analysis Request Form Geotracker Global ID 7060 45911 4-2	lysis Request Form		RUSH TAT 24 hr. TAT	TAT	172 hr. TAT 18 50	IX 5 day TAT
Send Results to: 5175 Hillsdale Circle, Suite 100 El Dorado Hills, CA 95762 (916) 939-7550, FAX (916) 939-7570 Attn.:	Preliminary Fax Result Sample Receipt/ Log-In Confirmation Electronic Data Deliverables Geotracker EDF Raw Data Deliverables Call with Verbal Results	Confirmation bles	Matrix Container Number of Containers	SISTIBLE STORES		
Lab ID Field Point ID (LAB USE ONLY)	Sample ID	Date Collected Cc	Time	-	Comments	ants
	SP-1,1-051706	5/17/200	7/4 0800 cm \$ 2 cm	XXXXXX	K Clizzoese	1 ad Hb
4	58-11-051106 1859	7	> ·	× × ×	* 1 * 1 *	Sdissolve
5	SP-10,1-051706	11/06 0900	900 Eu B 00%	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	· · · · · · · · · · · · · · · · · · ·	
7	SP-8,1-09,706	5/76 1440 Ge	740 Ger 10 125 C	X		
Signature	Date	Time	Signature		Date	Time
Relinquished by Ama Chy	5/18/06	0730	Relinquished by:_			
Received by:	- s/18/0c	1415	Received by:			
Relinquished by:			Relinquished by:	Administration and the second		
Received by:	TO THE PARTY THE		Received by:			
Matrix: W - Water; DW - Drinking Water; SW - Surface Water; GW - Ground Water; WW - Waste Water; RW - Reagent Water; S - Soil; SE - Sediment; SV - Soil Vapor; AA - Ambient Air; WS - Waste (Solid); Container: GB - Glass Bottle (Amber); V - 40 ml VOA Vial; BT, ST, PT - Brass, Steel, and Plastic Tube;	ce Water; GW - Ground Water; WW - Wast Soil Vapor; AA - Ambient Air; WS - Waste A Vial; BT, ST, PT - Brass, Steel, and Plas	ite Water; (Solid); O - Other stic Tube;	Project Name and Lo	Doation: FOYMYY GOUSGIN- 16017.08	Heoring Labourti SK DW	1/ nokins
P - Polythethylene; GJ - Glass Jar, SC - Summa Canister; TD - Tedlar Preservative: C - Cold; HS - Sulfuric Acid; HC - Hydrochloric Acid; HN - Nitric Acid; Na - Sodium Hydroxide; O - Other	iister; TD - Tedlar ochloric Acid; HN - Nitric Acid; Na - Sodiun	n Hydroxide; O - Oth	Sampled by:	75	Hawn Signature	
+		:			•	

Tomp=40

ORIGINAL - Laboratory (Return with Report)

YELLOW - Laboratory

PINK - Originator



	Total Volat	cile Hydrocarbo	ons
Lab #:	186873	Location:	Ft Bragg-Site Assessment
Client:	Acton Mickelson Environmental	Prep:	EPA 5030B
Project#:	16017.08	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	113518
Units:	ug/L	Sampled:	05/16/06
Diln Fac:	1.000	Received:	05/17/06

Field ID: SP-1.4-051606 Lab ID: 186873-001 Type: SAMPLE Analyzed: 05/18/06

Analyte	Result	RL	
Gasoline C6-C8	ND	50	
Gasoline C8-C10	ND	50	

Surrogate	%REC	Limits
Trifluorotoluene (FID)	88	69-137
Bromofluorobenzene (FID)	94	80-133

Field ID: SP-1.3-051606 Lab ID: 186873-002 Type: SAMPLE Analyzed: 05/18/06

Analyte	Result	RL	
Gasoline C6-C8	ND	50	
Gasoline C8-C10	ND	50	

Surrogate	%REC	Limits
Trifluorotoluene (FID)	91	69–137
Bromofluorobenzene (FID)	99	80-133

Field ID: SP-1.3-051606TB58 Lab ID: 186873-003 Type: SAMPLE Analyzed: 05/18/06

Analyte	Result	RL	
Gasoline C6-C8	ND	50	
Gasoline C8-C10	ND	50	

Surrogate	%REC	Limits	
Trifluorotoluene (FID)	90	69-137	
Bromofluorobenzene (FID)	100	80-133	

ND= Not Detected

RL= Reporting Limit



	Total Vola	tile Hydrocarbo	ons
Lab #:	186873	Location:	Ft Bragg-Site Assessment
Client:	Acton Mickelson Environmental	Prep:	EPA 5030B
Project#:	16017.08	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	113518
Units:	ug/L	Sampled:	05/16/06
Diln Fac:	1.000	Received:	05/17/06

Field ID: SP-1.2-051606 Lab ID: 186873-004 Type: SAMPLE Analyzed: 05/18/06

Analyte	Result	RL	
Gasoline C6-C8	ND	50	
Gasoline C8-C10	ND	50	

Surrogate	%REC	Limits
Trifluorotoluene (FID)	85	69-137
Bromofluorobenzene (FID)	92	80-133

Field ID: SP-4.1-051606 Lab ID: 186873-005 Type: SAMPLE Analyzed: 05/18/06

Analyte	Result	RL	
Gasoline C6-C8	ND	50	
Gasoline C8-C10	ND	50	

Surrogate	%REC	Limits
Trifluorotoluene (FID)	84	69-137
Bromofluorobenzene (FID)	92	80-133

Type: BLANK Analyzed: 05/17/06

Lab ID: QC340359

Analyte	Result	RL	
Gasoline C6-C8	ND	50	
Gasoline C8-C10	ND	50	

Surrogate	%REC	Limits
Trifluorotoluene (FID)	83	69-137
Bromofluorobenzene (FID)	83	80-133

ND= Not Detected

RL= Reporting Limit

Page 2 of 2



	Total Extr	actable Hydrocark	
Lab #:	186873	Location:	Ft Bragg-Site Assessment
	Acton Mickelson Environmental	Prep:	EPA 3520C
Project#:	16017.08	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	05/16/06
Units:	ug/L	Received:	05/17/06
Diln Fac:	1.000	Prepared:	05/18/06
Batch#:	113601	Analyzed:	05/22/06

Field ID: SP-1.4-051606 Lab ID: 186873-001 Type: SAMPLE Cleanup Method: EPA 3630C

Analyte	Result	RL	
Diesel C10-C12	ND	50	
Diesel C12-C16	ND	50	
Diesel C16-C24	ND	50	
Motor Oil C24-C36	ND	300	

Surrogate	%REC	Limits
Hexacosane	89	65-130

Field ID: SP-1.3-051606 Lab ID: 186873-002 Type: Cleanup Method: EPA 3630C

Analyte	Result	RL	
Diesel C10-C12	ND	50	
Diesel C12-C16	ND	50	
Diesel C16-C24	ND	50	
Motor Oil C24-C36	ND	300	

Surrogate	%REC	Limits
Hexacosane	96	65-130

Field ID: SP-1.2-051606 Lab ID: 186873-004 Type: SAMPLE Cleanup Method: EPA 3630C

Analyte	Result	RL	
Diesel C10-C12	ND	50	
Diesel C12-C16	ND	50	
Diesel C16-C24	ND	50	
Motor Oil C24-C36	ND	300	

	Surrogate	%REC	Limits
Hexacosane		100	65-130

Field ID: SP-4.1-051606 Lab ID: 186873-005 Type: Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C12	ND	50
Diesel C12-C16	ND	50
Diesel C16-C24	ND	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits	
Hexacosane	97	65-130	

ND= Not Detected RL= Reporting Limit



Total Extractable Hydrocarbons					
Lab #:	186873	Location:	Ft Bragg-Site Assessment		
	Acton Mickelson Environmental	Prep:	EPA 3520C		
Project#:	16017.08	Analysis:	EPA 8015B		
Matrix:	Water	Sampled:	05/16/06		
Units:	ug/L	Received:	05/17/06		
Diln Fac:	1.000	Prepared:	05/18/06		
Batch#:	113601	Analyzed:	05/22/06		

Type: BLANK Cleanup Method: EPA 3630C

Type: BLANK Lab ID: QC340701

Analyte	Result	RL	
Diesel C10-C12	ND	50	
Diesel C12-C16	ND	50	
Diesel C16-C24	ND	50	
Motor Oil C24-C36	ND	300	

Surrogate	%REC	Limits
Hexacosane	96	65-130

5.0



	Purgeable Organics by GC/MS					
Lab #:	186873	Location:	Ft Bragg-Site Assessment			
Client:	Acton Mickelson Environmental	Prep:	EPA 5030B			
Project#:	16017.08	Analysis:	EPA 8260B			
Field ID:	SP-1.4-051606	Batch#:	113830			
Lab ID:	186873-001	Sampled:	05/16/06			
Matrix:	Water	Received:	05/17/06			
Units:	ug/L	Analyzed:	05/26/06			
Diln Fac:	1.000					

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Ethanol	ND	1,000
Isopropanol	ND	100
Acetone	ND	10
Freon 113	ND	0.5
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND ND	0.5
Bromochloromethane	ND ND	0.5
1,1,1-Trichloroethane	ND ND	0.5
1,1-Dichloropropene	ND ND	0.5
Carbon Tetrachloride	ND ND	0.5
1,2-Dichloroethane	ND ND	0.5
Benzene	ND ND	0.5
Trichloroethene	ND ND	0.5
1,2-Dichloropropane	ND ND	0.5
Bromodichloromethane	ND ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5

ND= Not Detected RL= Reporting Limit Page 1 of 2



Purgeable Organics by GC/MS					
Lab #:	186873	Location:	Ft Bragg-Site Assessment		
Client:	Acton Mickelson Environmental	Prep:	EPA 5030B		
Project#:	16017.08	Analysis:	EPA 8260B		
Field ID:	SP-1.4-051606	Batch#:	113830		
Lab ID:	186873-001	Sampled:	05/16/06		
Matrix:	Water	Received:	05/17/06		
Units:	ug/L	Analyzed:	05/26/06		
Diln Fac:	1.000	-			

Analyte	Result	RL	
2-Chlorotoluene	ND	0.5	
4-Chlorotoluene	ND	0.5	
tert-Butylbenzene	ND	0.5	
1,2,4-Trimethylbenzene	ND	0.5	
sec-Butylbenzene	ND	0.5	
para-Isopropyl Toluene	ND	0.5	
1,3-Dichlorobenzene	ND	0.5	
1,4-Dichlorobenzene	ND	0.5	
n-Butylbenzene	ND	0.5	
1,2-Dichlorobenzene	ND	0.5	
1,2-Dibromo-3-Chloropropane	ND	2.0	
1,2,4-Trichlorobenzene	ND	0.5	
Hexachlorobutadiene	ND	0.5	
Naphthalene	ND	2.0	
1,2,3-Trichlorobenzene	ND	0.5	

Surrogate	%REC	Limits
Dibromofluoromethane	106	80-120
1,2-Dichloroethane-d4	106	80-130
Toluene-d8	102	80-120
Bromofluorobenzene	101	80-122

14.0



	Purgeable	Organics by GC/M	1S
Lab #:	186873	Location:	Ft Bragg-Site Assessment
Client:	Acton Mickelson Environmental	Prep:	EPA 5030B
Project#:	16017.08	Analysis:	EPA 8260B
Field ID:	SP-1.3-051606	Batch#:	113830
Lab ID:	186873-002	Sampled:	05/16/06
Matrix:	Water	Received:	05/17/06
Units:	ug/L	Analyzed:	05/26/06
Diln Fac:	1.000	_	

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Ethanol	ND	1,000
Isopropanol	ND	100
Acetone	ND	10
Freon 113	ND	0.5
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND ND	0.5
Bromochloromethane	ND ND	0.5
1,1,1-Trichloroethane	ND ND	0.5
1,1-Dichloropropene	ND ND	0.5
Carbon Tetrachloride	ND ND	0.5
1,2-Dichloroethane	ND ND	0.5
Benzene	ND ND	0.5
Trichloroethene	ND ND	0.5
1,2-Dichloropropane	ND ND	0.5
Bromodichloromethane	ND ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5

ND= Not Detected RL= Reporting Limit Page 1 of 2



	Purgeable	Organics by GC/M	IS
Lab #:	186873	Location:	Ft Bragg-Site Assessment
Client:	Acton Mickelson Environmental	Prep:	EPA 5030B
Project#:	16017.08	Analysis:	EPA 8260B
Field ID:	SP-1.3-051606	Batch#:	113830
Lab ID:	186873-002	Sampled:	05/16/06
Matrix:	Water	Received:	05/17/06
Units:	ug/L	Analyzed:	05/26/06
Diln Fac:	1.000		

Analyte	Result	RL	
2-Chlorotoluene	ND	0.5	
4-Chlorotoluene	ND	0.5	
tert-Butylbenzene	ND	0.5	
1,2,4-Trimethylbenzene	ND	0.5	
sec-Butylbenzene	ND	0.5	
para-Isopropyl Toluene	ND	0.5	
1,3-Dichlorobenzene	ND	0.5	
1,4-Dichlorobenzene	ND	0.5	
n-Butylbenzene	ND	0.5	
1,2-Dichlorobenzene	ND	0.5	
1,2-Dibromo-3-Chloropropane	ND	2.0	
1,2,4-Trichlorobenzene	ND	0.5	
Hexachlorobutadiene	ND	0.5	
Naphthalene	ND	2.0	
1,2,3-Trichlorobenzene	ND	0.5	

Surrogate %R	REC	Limits
Dibromofluoromethane 105	5	80-120
1,2-Dichloroethane-d4 104	4	80-130
Toluene-d8 99		80-120
Bromofluorobenzene 103	3	80-122



		Organics by GC/M	
Lab #:	186873	Location:	Ft Bragg-Site Assessment
Client:	Acton Mickelson Environmental	Prep:	EPA 5030B
Project#:	16017.08	Analysis:	EPA 8260B
Field ID:	SP-1.3-051606TB58	Batch#:	113830
Lab ID:	186873-003	Sampled:	05/16/06
Matrix:	Water	Received:	05/17/06
Units:	ug/L	Analyzed:	05/26/06
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Ethanol	ND	1,000
Isopropanol	ND	100
Acetone	ND	10
Freon 113	ND	0.5
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND ND	0.5
Bromochloromethane	ND ND	0.5
1,1,1-Trichloroethane	ND ND	0.5
1,1-Dichloropropene	ND ND	0.5
Carbon Tetrachloride	ND ND	0.5
1,2-Dichloroethane	ND ND	0.5
Benzene	ND ND	0.5
Trichloroethene	ND ND	0.5
1,2-Dichloropropane	ND ND	0.5
Bromodichloromethane	ND ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5

ND= Not Detected RL= Reporting Limit Page 1 of 2



		Organics by GC/M	IS
Lab #:	186873	Location:	Ft Bragg-Site Assessment
Client:	Acton Mickelson Environmental	Prep:	EPA 5030B
Project#:	16017.08	Analysis:	EPA 8260B
Field ID:	SP-1.3-051606TB58	Batch#:	113830
Lab ID:	186873-003	Sampled:	05/16/06
Matrix:	Water	Received:	05/17/06
Units:	ug/L	Analyzed:	05/26/06
Diln Fac:	1.000	_	

Analyte	Result	RL	
2-Chlorotoluene	ND	0.5	
4-Chlorotoluene	ND	0.5	
tert-Butylbenzene	ND	0.5	
1,2,4-Trimethylbenzene	ND	0.5	
sec-Butylbenzene	ND	0.5	
para-Isopropyl Toluene	ND	0.5	
1,3-Dichlorobenzene	ND	0.5	
1,4-Dichlorobenzene	ND	0.5	
n-Butylbenzene	ND	0.5	
1,2-Dichlorobenzene	ND	0.5	
1,2-Dibromo-3-Chloropropane	ND	2.0	
1,2,4-Trichlorobenzene	ND	0.5	
Hexachlorobutadiene	ND	0.5	
Naphthalene	ND	2.0	
1,2,3-Trichlorobenzene	ND	0.5	

Surrogate %R	REC	Limits
Dibromofluoromethane 106	6	80-120
1,2-Dichloroethane-d4 107	7	80-130
Toluene-d8 99		80-120
Bromofluorobenzene 100	0	80-122



	Purgeable	Organics by GC/M	IS .
Lab #:	186873	Location:	Ft Bragg-Site Assessment
Client:	Acton Mickelson Environmental	Prep:	EPA 5030B
Project#:	16017.08	Analysis:	EPA 8260B
Field ID:	SP-1.2-051606	Batch#:	113830
Lab ID:	186873-004	Sampled:	05/16/06
Matrix:	Water	Received:	05/17/06
Units:	ug/L	Analyzed:	05/26/06
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Ethanol	ND	1,000
Isopropanol	ND	100
Acetone	ND	10
Freon 113	ND	0.5
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND ND	0.5
Bromochloromethane	ND ND	0.5
1,1,1-Trichloroethane	ND ND	0.5
1,1-Dichloropropene	ND ND	0.5
Carbon Tetrachloride	ND ND	0.5
1,2-Dichloroethane	ND ND	0.5
Benzene	ND ND	0.5
Trichloroethene	ND ND	0.5
1,2-Dichloropropane	ND ND	0.5
Bromodichloromethane	ND ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5

ND= Not Detected RL= Reporting Limit Page 1 of 2



Purgeable Organics by GC/MS					
Lab #:	186873	Location:	Ft Bragg-Site Assessment		
Client:	Acton Mickelson Environmental	Prep:	EPA 5030B		
Project#:	16017.08	Analysis:	EPA 8260B		
Field ID:	SP-1.2-051606	Batch#:	113830		
Lab ID:	186873-004	Sampled:	05/16/06		
Matrix:	Water	Received:	05/17/06		
Units:	ug/L	Analyzed:	05/26/06		
Diln Fac:	1.000				

Analyte	Result	RL	
2-Chlorotoluene	ND	0.5	
4-Chlorotoluene	ND	0.5	
tert-Butylbenzene	ND	0.5	
1,2,4-Trimethylbenzene	ND	0.5	
sec-Butylbenzene	ND	0.5	
para-Isopropyl Toluene	ND	0.5	
1,3-Dichlorobenzene	ND	0.5	
1,4-Dichlorobenzene	ND	0.5	
n-Butylbenzene	ND	0.5	
1,2-Dichlorobenzene	ND	0.5	
1,2-Dibromo-3-Chloropropane	ND	2.0	
1,2,4-Trichlorobenzene	ND	0.5	
Hexachlorobutadiene	ND	0.5	
Naphthalene	ND	2.0	
1,2,3-Trichlorobenzene	ND	0.5	

Surrogate	%REC	Limits	
Dibromofluoromethane	106	80-120	
1,2-Dichloroethane-d4	106	80-130	
Toluene-d8	100	80-120	
Bromofluorobenzene	100	80-122	

17.0



Purgeable Organics by GC/MS					
Lab #:	186873	Location:	Ft Bragg-Site Assessment		
Client:	Acton Mickelson Environmental	Prep:	EPA 5030B		
Project#:	16017.08	Analysis:	EPA 8260B		
Field ID:	SP-4.1-051606	Batch#:	113830		
Lab ID:	186873-005	Sampled:	05/16/06		
Matrix:	Water	Received:	05/17/06		
Units:	ug/L	Analyzed:	05/26/06		
Diln Fac:	1.000	2			

Analyte	Result	RL	
Freon 12	ND	1.0	
Chloromethane	ND	1.0	
Vinvl Chloride	ND	0.5	
Bromomethane	ND	1.0	
Chloroethane	ND	1.0	
Trichlorofluoromethane	ND	1.0	
Ethanol	ND	1,000	
Isopropanol	ND	100	
Acetone	ND	10	
Freon 113	ND	0.5	
1,1-Dichloroethene	ND	0.5	
Methylene Chloride	ND	10	
Carbon Disulfide	ND	0.5	
MTBE	ND	0.5	
trans-1,2-Dichloroethene	ND	0.5	
Vinyl Acetate	ND	10	
1,1-Dichloroethane	ND	0.5	
2-Butanone	ND	10	
cis-1,2-Dichloroethene	ND	0.5	
2,2-Dichloropropane	ND	0.5	
Chloroform	ND	0.5	
Bromochloromethane	ND	0.5	
1,1,1-Trichloroethane	ND	0.5	
1,1-Dichloropropene	ND	0.5	
Carbon Tetrachloride	ND	0.5	
1,2-Dichloroethane	ND	0.5	
Benzene	ND	0.5	
Trichloroethene	ND	0.5	
1,2-Dichloropropane	ND	0.5	
Bromodichloromethane	ND	0.5	
Dibromomethane	ND	0.5	
4-Methyl-2-Pentanone	ND	10	
cis-1,3-Dichloropropene	ND	0.5	
Toluene	ND	0.5	
trans-1,3-Dichloropropene	ND	0.5	
1,1,2-Trichloroethane	ND	0.5	
2-Hexanone	ND	10	
1,3-Dichloropropane	ND	0.5	
Tetrachloroethene	ND	0.5	
Dibromochloromethane	ND	0.5	
1,2-Dibromoethane	ND	0.5	
Chlorobenzene	ND	0.5	
1,1,1,2-Tetrachloroethane	ND	0.5	
Ethylbenzene	ND	0.5	
m,p-Xylenes	ND	0.5	
o-Xylene	ND	0.5	
Styrene	ND	0.5	
Bromoform	ND	1.0	
Isopropylbenzene	ND	0.5	
1,1,2,2-Tetrachloroethane	ND	0.5	
1,2,3-Trichloropropane	ND	0.5	
Propylbenzene	ND	0.5	
Bromobenzene	ND	0.5	
1,3,5-Trimethylbenzene	ND	0.5	

ND= Not Detected RL= Reporting Limit Page 1 of 2



Purgeable Organics by GC/MS					
Lab #:	186873	Location:	Ft Bragg-Site Assessment		
Client:	Acton Mickelson Environmental	Prep:	EPA 5030B		
Project#:	16017.08	Analysis:	EPA 8260B		
Field ID:	SP-4.1-051606	Batch#:	113830		
Lab ID:	186873-005	Sampled:	05/16/06		
Matrix:	Water	Received:	05/17/06		
Units:	ug/L	Analyzed:	05/26/06		
Diln Fac:	1.000	-			

Analyte	Result	RL	
2-Chlorotoluene	ND	0.5	
4-Chlorotoluene	ND	0.5	
tert-Butylbenzene	ND	0.5	
1,2,4-Trimethylbenzene	ND	0.5	
sec-Butylbenzene	ND	0.5	
para-Isopropyl Toluene	ND	0.5	
1,3-Dichlorobenzene	ND	0.5	
1,4-Dichlorobenzene	ND	0.5	
n-Butylbenzene	ND	0.5	
1,2-Dichlorobenzene	ND	0.5	
1,2-Dibromo-3-Chloropropane	ND	2.0	
1,2,4-Trichlorobenzene	ND	0.5	
Hexachlorobutadiene	ND	0.5	
Naphthalene	ND	2.0	
1,2,3-Trichlorobenzene	ND	0.5	

Surrogate	%REC	Limits
Dibromofluoromethane 1	107	80-120
1,2-Dichloroethane-d4	105	80-130
Toluene-d8	101	80-120
Bromofluorobenzene 1	103	80-122



	Polychlorinate	d Biphenyl Con	geners
Lab #:	186873	Location:	Ft Bragg-Site Assessment
Client:	Acton Mickelson Environmental	Prep:	EPA 3520C
Project#:	16017.08	Analysis:	EPA 8082
Field ID:	SP-1.4-051606	Batch#:	113730
Lab ID:	186873-001	Sampled:	05/16/06
Matrix:	Water	Received:	05/17/06
Units:	ug/L	Prepared:	05/23/06
Diln Fac:	1.000	Analyzed:	05/28/06

Analyte	Result	RL	MDL
BZ# 8	ND	0.049	0.010
BZ# 18	ND	0.049	0.013
BZ# 28	ND	0.049	0.010
BZ# 52	ND	0.049	0.010
BZ# 44	ND	0.049	0.0090
BZ# 66	ND	0.049	0.0084
BZ# 101	ND	0.049	0.0097
BZ# 81	ND	0.049	0.0087
BZ# 77	ND	0.049	0.012
BZ# 123	ND	0.049	0.0080
BZ# 118	ND	0.049	0.0093
BZ# 114	ND	0.049	0.0095
BZ# 153	ND	0.049	0.011
BZ# 105	ND	0.049	0.0082
BZ# 138	ND	0.049	0.0098
BZ# 187	ND	0.049	0.0082
BZ# 126	ND	0.049	0.0089
BZ# 128	ND	0.049	0.0083
BZ# 167	ND	0.049	0.0095
BZ# 156	ND #	0.049	0.0090
BZ# 157	ND	0.049	0.0083
BZ# 180	ND	0.049	0.0074
BZ# 170	ND #	0.049	0.0081
BZ# 169	ND #	0.049	0.0086
BZ# 189	ND #	0.049	0.0091
BZ# 195	ND	0.049	0.0093
BZ# 206	ND #	0.049	0.0090
BZ# 209	ND #	0.049	0.0083

Surrogate	%REC	Limits
TCMX	83	37-140
BZ# 205	82	37-140

^{#=} CCV drift outside limits; average CCV drift within limits per method requirements

ND= Not Detected

RL= Reporting Limit

MDL= Method Detection Limit



	Polychlorinate	d Biphenyl Con	geners
Lab #:	186873	Location:	Ft Bragg-Site Assessment
Client:	Acton Mickelson Environmental	Prep:	EPA 3520C
Project#:	16017.08	Analysis:	EPA 8082
Field ID:	SP-1.3-051606	Batch#:	113730
Lab ID:	186873-002	Sampled:	05/16/06
Matrix:	Water	Received:	05/17/06
Units:	ug/L	Prepared:	05/23/06
Diln Fac:	1.000	Analyzed:	05/28/06

Analyte	Result	RL	MDL
BZ# 8	ND	0.047	0.010
BZ# 18	ND	0.047	0.012
BZ# 28	ND	0.047	0.0099
BZ# 52	ND	0.047	0.010
BZ# 44	ND	0.047	0.0087
BZ# 66	ND	0.047	0.0081
BZ# 101	ND	0.047	0.0095
BZ# 81	ND	0.047	0.0085
BZ# 77	ND	0.047	0.012
BZ# 123	ND	0.047	0.0078
BZ# 118	ND	0.047	0.0091
BZ# 114	ND	0.047	0.0092
BZ# 153	ND	0.047	0.010
BZ# 105	ND	0.047	0.0080
BZ# 138	ND	0.047	0.0095
BZ# 187	ND	0.047	0.0080
BZ# 126	ND	0.047	0.0086
BZ# 128	ND	0.047	0.0080
BZ# 167	ND	0.047	0.0093
BZ# 156	ND #	0.047	0.0087
BZ# 157	ND	0.047	0.0081
BZ# 180	ND	0.047	0.0072
BZ# 170	ND #	0.047	0.0079
BZ# 169	ND #	0.047	0.0083
BZ# 189	ND #	0.047	0.0088
BZ# 195	ND	0.047	0.0090
BZ# 206	ND #	0.047	0.0087
BZ# 209	ND #	0.047	0.0081

Surrogate	%REC	Limits	
TCMX	95	37-140	
BZ# 205	86	37-140	

^{#=} CCV drift outside limits; average CCV drift within limits per method requirements

ND= Not Detected

RL= Reporting Limit

MDL= Method Detection Limit



	Polychlorinate	d Biphenyl Con	geners
Lab #:	186873	Location:	Ft Bragg-Site Assessment
Client: 2	Acton Mickelson Environmental	Prep:	EPA 3520C
Project#:	16017.08	Analysis:	EPA 8082
Field ID:	SP-1.2-051606	Batch#:	113730
Lab ID:	186873-004	Sampled:	05/16/06
Matrix:	Water	Received:	05/17/06
Units:	ug/L	Prepared:	05/23/06
Diln Fac:	1.000	Analyzed:	05/28/06

Analyte	Result	RL	MDL
BZ# 8	ND	0.048	0.010
BZ# 18	ND	0.048	0.012
BZ# 28	ND	0.048	0.0099
BZ# 52	ND	0.048	0.010
BZ# 44	ND	0.048	0.0088
BZ# 66	ND	0.048	0.0082
BZ# 101	ND	0.048	0.0095
BZ# 81	ND	0.048	0.0086
BZ# 77	ND	0.048	0.012
BZ# 123	ND	0.048	0.0079
BZ# 118	ND	0.048	0.0092
BZ# 114	ND	0.048	0.0093
BZ# 153	ND	0.048	0.011
BZ# 105	ND	0.048	0.0081
BZ# 138	ND	0.048	0.0096
BZ# 187	ND	0.048	0.0080
BZ# 126	ND	0.048	0.0087
BZ# 128	ND	0.048	0.0081
BZ# 167	ND	0.048	0.0094
BZ# 156	ND #	0.048	0.0088
BZ# 157	ND	0.048	0.0081
BZ# 180	ND	0.048	0.0073
BZ# 170	ND #	0.048	0.0080
BZ# 169	ND #	0.048	0.0084
BZ# 189	ND #	0.048	0.0089
BZ# 195	ND	0.048	0.0091
BZ# 206	ND #	0.048	0.0088
BZ# 209	ND #	0.048	0.0082

Surrogate	%REC	Limits
TCMX	89	37-140
BZ# 205	89	37-140

^{#=} CCV drift outside limits; average CCV drift within limits per method requirements

ND= Not Detected

RL= Reporting Limit

MDL= Method Detection Limit



	Polychlorinate	d Biphenyl Con	ngeners
Lab #:	186873	Location:	Ft Bragg-Site Assessment
Client:	Acton Mickelson Environmental	Prep:	EPA 35ŽÕC
Project#:	16017.08	Analysis:	EPA 8082
Field ID:	SP-4.1-051606	Batch#:	113730
Lab ID:	186873-005	Sampled:	05/16/06
Matrix:	Water	Received:	05/17/06
Units:	ug/L	Prepared:	05/23/06
Diln Fac:	1.000	Analyzed:	05/28/06

Analyte	Result	RL	MDL
BZ# 8	0.030 C J	0.048	0.010
BZ# 18	ND	0.048	0.012
BZ# 28	ND	0.048	0.0099
BZ# 52	ND	0.048	0.010
BZ# 44	ND	0.048	0.0088
BZ# 66	ND	0.048	0.0082
BZ# 101	ND	0.048	0.0095
BZ# 81	ND	0.048	0.0086
BZ# 77	ND	0.048	0.012
BZ# 123	ND	0.048	0.0079
BZ# 118	ND	0.048	0.0092
BZ# 114	ND	0.048	0.0093
BZ# 153	ND	0.048	0.011
BZ# 105	ND	0.048	0.0081
BZ# 138	ND	0.048	0.0096
BZ# 187	ND	0.048	0.0080
BZ# 126	ND	0.048	0.0087
BZ# 128	ND	0.048	0.0081
BZ# 167	ND	0.048	0.0094
BZ# 156	ND #	0.048	0.0088
BZ# 157	ND	0.048	0.0081
BZ# 180	ND	0.048	0.0073
BZ# 170	ND #	0.048	0.0080
BZ# 169	ND #	0.048	0.0084
BZ# 189	ND #	0.048	0.0089
BZ# 195	ND	0.048	0.0091
BZ# 206	ND #	0.048	0.0088
BZ# 209	ND #	0.048	0.0082

Surrogate	%REC	Limits
TCMX	86	37-140
BZ# 205	89	37-140

^{#=} CCV drift outside limits; average CCV drift within limits per method requirements C= Presence confirmed, but RPD between columns exceeds 40%

J= Estimated value

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit



	Polynuclear	Aromatics by H	PLC
Lab #:	186873	Location:	Ft Bragg-Site Assessment
Client:	Acton Mickelson Environmental	Prep:	EPA 3520C
Project#:	16017.08	Analysis:	EPA 8310
Field ID:	SP-1.4-051606	Batch#:	113727
Lab ID:	186873-001	Sampled:	05/16/06
Matrix:	Water	Received:	05/17/06
Units:	ug/L	Prepared:	05/23/06
Diln Fac:	1.000	Analyzed:	05/24/06

Analyte	Result	RL	MDL
Naphthalene	ND	0.96	0.09
Acenaphthylene	ND	1.9	0.24
Acenaphthene	ND	0.96	0.32
Fluorene	ND	0.19	0.03
Phenanthrene	ND	0.10	0.007
Anthracene	ND	0.10	0.02
Fluoranthene	ND	0.19	0.01
Pyrene	ND	0.10	0.01
Benzo(a)anthracene	ND	0.10	0.01
Chrysene	ND	0.10	0.009
Benzo(b)fluoranthene	ND	0.19	0.01
Benzo(k)fluoranthene	ND	0.10	0.008
Benzo(a)pyrene	ND	0.10	0.02
Dibenz(a,h)anthracene	ND	0.19	0.02
Benzo(g,h,i)perylene	ND	0.19	0.02
Indeno(1,2,3-cd)pyrene	ND	0.10	0.009

Surrogate	%REC	Limits
1-Methylnaphthalene (UV)	93	65-120
1-Methylnaphthalene (F)	96	65-120

ND= Not Detected

RL= Reporting Limit

MDL= Method Detection Limit

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	Polynuclear	Aromatics by H	PLC
Lab #:	186873	Location:	Ft Bragg-Site Assessment
Client:	Acton Mickelson Environmental	Prep:	EPA 3520C
Project#:	16017.08	Analysis:	EPA 8310
Field ID:	SP-1.3-051606	Batch#:	113727
Lab ID:	186873-002	Sampled:	05/16/06
Matrix:	Water	Received:	05/17/06
Units:	ug/L	Prepared:	05/23/06
Diln Fac:	1.000	Analyzed:	05/24/06

Analyte	Result	RL	MDL
Naphthalene	ND	0.95	0.09
Acenaphthylene	ND	1.9	0.23
Acenaphthene	ND	0.95	0.31
Fluorene	ND	0.19	0.03
Phenanthrene	ND	0.10	0.007
Anthracene	ND	0.10	0.02
Fluoranthene	ND	0.19	0.01
Pyrene	ND	0.10	0.01
Benzo(a)anthracene	ND	0.10	0.01
Chrysene	ND	0.10	0.009
Benzo(b)fluoranthene	ND	0.19	0.01
Benzo(k)fluoranthene	ND	0.10	0.008
Benzo(a)pyrene	ND	0.10	0.02
Dibenz(a,h)anthracene	ND	0.19	0.02
Benzo(g,h,i)perylene	ND	0.19	0.02
Indeno(1,2,3-cd)pyrene	ND	0.10	0.009

Surrogate	%REC	Limits
1-Methylnaphthalene (UV)	91	65-120
1-Methylnaphthalene (F)	94	65-120

ND= Not Detected

RL= Reporting Limit

MDL= Method Detection Limit



	Polynuclear	Aromatics by H	IPLC
Lab #:	186873	Location:	Ft Bragg-Site Assessment
Client:	Acton Mickelson Environmental	Prep:	EPA 3520C
Project#:	16017.08	Analysis:	EPA 8310
Field ID:	SP-1.2-051606	Batch#:	113727
Lab ID:	186873-004	Sampled:	05/16/06
Matrix:	Water	Received:	05/17/06
Units:	ug/L	Prepared:	05/23/06
Diln Fac:	1.000	Analyzed:	05/24/06

Analyte	Result	RL	MDL
Naphthalene	ND	0.95	0.09
Acenaphthylene	ND	1.9	0.23
Acenaphthene	ND	0.95	0.31
Fluorene	ND	0.19	0.03
Phenanthrene	ND	0.10	0.007
Anthracene	ND	0.10	0.02
Fluoranthene	ND	0.19	0.01
Pyrene	ND	0.10	0.01
Benzo(a)anthracene	ND	0.10	0.01
Chrysene	ND	0.10	0.009
Benzo(b)fluoranthene	ND	0.19	0.01
Benzo(k)fluoranthene	ND	0.10	0.008
Benzo(a)pyrene	ND	0.10	0.02
Dibenz(a,h)anthracene	ND	0.19	0.02
Benzo(g,h,i)perylene	ND	0.19	0.02
Indeno(1,2,3-cd)pyrene	ND	0.10	0.009

Surrogate	%REC	Limits
1-Methylnaphthalene (UV)	90	65-120
1-Methylnaphthalene (F)	92	65-120

ND= Not Detected

RL= Reporting Limit

MDL= Method Detection Limit



	Polynuclear	Aromatics by H	IPLC
Lab #:	186873	Location:	Ft Bragg-Site Assessment
Client:	Acton Mickelson Environmental	Prep:	EPA 3520C
Project#:	16017.08	Analysis:	EPA 8310
Field ID:	SP-4.1-051606	Batch#:	113727
Lab ID:	186873-005	Sampled:	05/16/06
Matrix:	Water	Received:	05/17/06
Units:	ug/L	Prepared:	05/23/06
Diln Fac:	1.000	Analyzed:	05/24/06

Analyte	Result	RL	MDL
Naphthalene	ND	0.95	0.09
Acenaphthylene	ND	1.9	0.23
Acenaphthene	ND	0.95	0.31
Fluorene	ND	0.19	0.03
Phenanthrene	ND	0.10	0.007
Anthracene	ND	0.10	0.02
Fluoranthene	ND	0.19	0.01
Pyrene	ND	0.10	0.01
Benzo(a)anthracene	ND	0.10	0.01
Chrysene	ND	0.10	0.009
Benzo(b)fluoranthene	ND	0.19	0.01
Benzo(k)fluoranthene	ND	0.10	0.008
Benzo(a)pyrene	ND	0.10	0.02
Dibenz(a,h)anthracene	ND	0.19	0.02
Benzo(g,h,i)perylene	ND	0.19	0.02
Indeno(1,2,3-cd)pyrene	ND	0.10	0.009

Surrogate	%REC	Limits
1-Methylnaphthalene (UV)	92	65-120
1-Methylnaphthalene (F)	94	65-120

ND= Not Detected

RL= Reporting Limit

MDL= Method Detection Limit



Dissolved California Title 26 Metals							
Lab #: 18687	73	Project#:	16017.08				
Client: Acton Mickelson Environmental Location:			Ft Bragg-Site Assessment				
Field ID:	SP-1.4-051606	Diln Fac:	1.000				
Lab ID:	186873-001	Sampled:	05/16/06				
Matrix: Filtrate Received: 05/17/06							
Units:	ug/L						

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Aı	nalysis
Antimony	ND	1.0	113835	05/26/06	05/31/06	200.8	EPA	6020
Arsenic	ND	1.0	113835	05/26/06	05/31/06	200.8	EPA	6020
Barium	26	1.0	113835	05/26/06	05/31/06	200.8	EPA	6020
Beryllium	ND	1.0	113835	05/26/06	05/31/06	200.8	EPA	6020
Cadmium	ND	1.0	113835	05/26/06	05/31/06	200.8	EPA	6020
Chromium	1.4	1.0	113835	05/26/06	05/31/06	200.8	EPA	6020
Cobalt	ND	1.0	113835	05/26/06	05/31/06	200.8	EPA	6020
Copper	3.2	1.0	113835	05/26/06	05/31/06	200.8	EPA	6020
Lead	ND	1.0	113835	05/26/06	05/31/06	200.8	EPA	6020
Mercury	ND	0.20	113794	05/25/06	05/25/06	METHOD	EPA	7470A
Molybdenum	ND	1.0	113835	05/26/06	05/31/06	200.8	EPA	6020
Nickel	1.2	1.0	113835	05/26/06	05/31/06	200.8	EPA	6020
Selenium	ND	1.0	113835	05/26/06	05/31/06	200.8	EPA	6020
Silver	ND	1.0	113835	05/26/06	05/31/06	200.8	EPA	6020
Thallium	ND	1.0	113835	05/26/06	05/31/06	200.8	EPA	6020
Vanadium	8.9	1.0	113835	05/26/06	05/31/06	200.8	EPA	6020
Zinc	8.0	1.0	113835	05/26/06	05/31/06	200.8	EPA	6020

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Dissolved California Title 26 Metals							
Lab #: 186873		Project#:	16017.08				
Client: Acton Mickelson Environmental Location: Ft Bragg-Site Assessmer							
Field ID:	SP-1.3-051606	Diln Fac:	1.000				
Lab ID:	Lab ID: 186873-002 Sampled: 05/16/06						
Matrix:	Matrix: Filtrate Received: 05/17/06						
Units:	ug/L						

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Arsenic	ND	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Barium	63	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Beryllium	ND	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Cadmium	ND	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Chromium	1.4	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Cobalt	ND	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Copper	2.0	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Lead	ND	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Mercury	ND	0.20	113794	05/25/06	05/25/06	METHOD	EPA 7470A
Molybdenum	ND	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Nickel	ND	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Selenium	ND	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Silver	ND	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Thallium	ND	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Vanadium	5.2	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Zinc	3.4	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020

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Dissolved California Title 26 Metals							
Lab #: 186873		Project#:	16017.08				
Client: Acton N	Mickelson Environmental	Location:	Ft Bragg-Site Assessment				
Field ID:	SP-1.2-051606	Diln Fac:	1.000				
Lab ID:	186873-004	Sampled:	05/16/06				
Matrix:	Filtrate	Received:	05/17/06				
Units:	ug/L						

Analyte	Result	RL	Batch# Prepared Analyzed Prep Ana	alysis
Antimony	ND	1.0	113835 05/26/06 05/31/06 200.8 EPA 6	5020
Arsenic	ND	1.0	113835 05/26/06 05/31/06 200.8 EPA 6	5020
Barium	24	1.0	113835 05/26/06 05/31/06 200.8 EPA 6	5020
Beryllium	ND	1.0	113835 05/26/06 05/31/06 200.8 EPA 6	5020
Cadmium	ND	1.0	113835 05/26/06 05/31/06 200.8 EPA 6	5020
Chromium	1.5	1.0	113835 05/26/06 05/31/06 200.8 EPA 6	5020
Cobalt	ND	1.0	113835 05/26/06 05/31/06 200.8 EPA 6	5020
Copper	ND	1.0	113835 05/26/06 05/31/06 200.8 EPA 6	5020
Lead	ND	1.0	113835 05/26/06 05/31/06 200.8 EPA 6	5020
Mercury	ND	0.20	113794 05/25/06 05/25/06 METHOD EPA 7	7470A
Molybdenum	ND	1.0	113835 05/26/06 05/31/06 200.8 EPA 6	5020
Nickel	ND	1.0	113835 05/26/06 05/31/06 200.8 EPA 6	5020
Selenium	ND	1.0	113835 05/26/06 05/31/06 200.8 EPA 6	5020
Silver	ND	1.0	113835 05/26/06 05/31/06 200.8 EPA 6	5020
Thallium	ND	1.0	113835 05/26/06 05/31/06 200.8 EPA 6	5020
Vanadium	6.7	1.0	113835 05/26/06 05/31/06 200.8 EPA 6	5020
Zinc	2.9	1.0	113835 05/26/06 05/31/06 200.8 EPA 6	5020

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Dissolved California Title 26 Metals							
Lab #: 186873		Project#:	16017.08				
Client: Acton N	Mickelson Environmental	Location:	Ft Bragg-Site Assessment				
Field ID:	SP-4.1-051606	Diln Fac:	1.000				
Lab ID:	186873-005	Sampled:	05/16/06				
Matrix:	Filtrate	Received:	05/17/06				
Units:	ug/L						

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Arsenic	1.6	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Barium	30	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Beryllium	ND	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Cadmium	ND	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Chromium	2.6	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Cobalt	1.1	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Copper	2.9	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Lead	ND	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Mercury	ND	0.20	113794	05/25/06	05/25/06	METHOD	EPA 7470A
Molybdenum	ND	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Nickel	1.5	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Selenium	ND	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Silver	ND	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Thallium	ND	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Vanadium	8.6	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020
Zinc	5.5	1.0	113835	05/26/06	05/31/06	200.8	EPA 6020

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V 5 day TAT Comments Time Quotation # Chain of Custody Date Georgia- 1 × **トメメメメ**メ え عر 8 メンメノメノをか 48 hr. TAT SISAIBUT DOISONDON ō 10 rmex メ 1 × × Page 24 hr. TAT Project Name and Location: Preservative Relinquished by: Relinquished by: Number of Containers Received by: Received by: ţ 5/4/10 0810 RW V 16/16 1230 GW 3 Acton Mickelson • Environmental, Inc. ্র tard TAT Signature E 5/4/1 1002 Gev ☐ BUSH TAT Matrix 10/00 0000 Collected | Collected A Sample (3 belied SP-1.4-05/606) Preliminary Fax Refult 186873 0730 000 Sample Receipt/ Log-In Confirmation Time Matrix: W - Water; DW - Drinking Water; SW - Surface Water; GW - Ground Water; WW - Waste Water; Electronic Data Deliverables # SP-13-051604 1658 Call with Verbal Results Raw Data Deliverables Chain of Custody and Analysis Reguest Form SP-4.1-05/406 SP-1,3-05160C SP-1,2-05/606 SP-1,4-057606 Geotracker EDF Sample ID となってん (916) 939-7550, FAX (916) 939-7570 Field Point ID 5175 Hillsdale Circle, Suite 100 Geotracker Global ID 🖊 El Dorado Hills, CA 95762 Send Results to: ノナナ (LAB USE ONLY) Relinquished by: Relinquished by: Received by: Received by: 5 Signature

201000

P - Polythethylene; GJ - Glass Jar, SC - Summa Canister, TD - Tedlar Preservative: C - Cold; HS - Sulfuric Acid; HC - Hydrochloric Acid; HN - Nitric Acid; Na - Sodium Hydroxide; O - Other ORIGINAL - Laboratory (Return with Report) RW - Reagent Water; S - Soil; SE - Sediment; SV - Soil Vapor; AA - Ambient Air; WS - Waste (Solid); O - Other Container: GB - Glass Bottle (Amber); V - 40 ml VOA Vial; BT, ST, PT - Brass, Steel, and Plastic Tube; Looler Tanp=2.2°, 3

YELLOW - Laboratory

Project Number:

Sampled by:

NOMOS CANNO PINK - Originator



Total Volatile Hydrocarbons							
Lab #:	186609	Location:	Ft Bragg-Site Assessment				
Client:	Acton Mickelson Environmental	Prep:	EPA 5030B				
Project#:	16017.08	Analysis:	EPA 8015B				
Matrix:	Water	Batch#:	113148				
Units:	ug/L	Sampled:	05/03/06				
Diln Fac:	1.000	Received:	05/04/06				

Field ID: SEEP-3-050306TB57 Lab ID: 186609-001 Type: SAMPLE Analyzed: 05/09/06

Analyte	Result	RL	
Gasoline C6-C8	ND	50	
Gasoline C8-C10	ND	50	

Surrogate	%REC	Limits	
Trifluorotoluene (FID)	103	69-137	
Bromofluorobenzene (FID)	103	80-133	

Field ID: SEEP-3-050306 Lab ID: 186609-002 Type: SAMPLE Analyzed: 05/09/06

Analyte	Result	RL	
Gasoline C6-C8	ND	50	
Gasoline C8-C10	ND	50	

Surrogate	%REC	Limits	
Trifluorotoluene (FID)	102	69-137	
Bromofluorobenzene (FID)	104	80-133	

Type: BLANK Analyzed: 05/08/06

Lab ID: QC338865

Analyte	Result	RL	
Gasoline C6-C8	ND	50	
Gasoline C8-C10	ND	50	

Surrogate	%REC	Limits	
Trifluorotoluene (FID)	89	69-137	
Bromofluorobenzene (FID)	91	80-133	

ND= Not Detected

RL= Reporting Limit



5.0

Total Extractable Hydrocarbons							
Lab #:	186609	Location:	Ft Bragg-Site Assessment				
Client:	Acton Mickelson Environmental	Prep:	EPA 3520C				
Project#:	16017.08	Analysis:	EPA 8015B				
Field ID:	SP-8.1-050306	Batch#:	113222				
Matrix:	Water	Sampled:	05/03/06				
Units:	ug/L	Received:	05/04/06				
Diln Fac:	1.000	Prepared:	05/09/06				

Type: SAMPLE Analyzed: 05/11/06
Lab ID: 186609-002 Cleanup Method: EPA 3630C

Analyte	Result	RL	
Diesel C10-C12	ND	50	
Diesel C12-C16	ND	50	
Diesel C16-C24	ND	50	
Motor Oil C24-C36	ND	300	

Surrogate	%REC	Limits
Hexacosane	108	65-130

Type: BLANK Analyzed: 05/10/06
Lab ID: QC339163 Cleanup Method: EPA 3630C

Analyte	Result	RL	
Diesel C10-C12	ND	50	
Diesel C12-C16	ND	50	
Diesel C16-C24	ND	50	
Motor Oil C24-C36	ND	300	

Surrogate	%REC	Limits
Hexacosane	97	65-130

ND= Not Detected RL= Reporting Limit



Purgeable Organics by GC/MS					
Lab #:	186609	Location:	Ft Bragg-Site Assessment		
Client:	Acton Mickelson Environmental	Prep:	EPA 5030B		
Project#:	16017.08	Analysis:	EPA 8260B		
Field ID:	SP-8.1-050306TB57	Batch#:	113428		
Lab ID:	186609-001	Sampled:	05/03/06		
Matrix:	Water	Received:	05/04/06		
Units:	ug/L	Analyzed:	05/15/06		
Diln Fac:	1.000				

Analyte	Result	RL	
Freon 12	ND	1.0	
Chloromethane	ND	1.0	
Vinyl Chloride	ND	0.5	
Bromomethane	ND	1.0	
Chloroethane	ND	1.0	
Ethanol	ND	1,000	
Trichlorofluoromethane	ND	1.0	
Isopropanol	ND	100	
Acetone	ND	10	
Freon 113	ND	0.5	
1,1-Dichloroethene	ND	0.5	
Methylene Chloride	ND	10	
Carbon Disulfide	ND	0.5	
MTBE	ND	0.5	
trans-1,2-Dichloroethene	ND	0.5	
Vinyl Acetate	ND	10	
1,1-Dichloroethane	ND	0.5	
2-Butanone	ND	10	
cis-1,2-Dichloroethene	ND	0.5	
2,2-Dichloropropane	ND	0.5	
Chloroform	ND	0.5	
Bromochloromethane	ND	0.5	
1,1,1-Trichloroethane	ND	0.5	
1,1-Dichloropropene	ND	0.5	
Carbon Tetrachloride	ND	0.5	
1,2-Dichloroethane	ND	0.5	
Benzene	ND	0.5	
Trichloroethene	ND	0.5	
1,2-Dichloropropane	ND	0.5	
Bromodichloromethane	ND	0.5	
Dibromomethane	ND	0.5	
4-Methyl-2-Pentanone	ND	10	
cis-1,3-Dichloropropene	ND	0.5	
Toluene	ND	0.5	
trans-1,3-Dichloropropene	ND	0.5	
1,1,2-Trichloroethane	ND	0.5	
2-Hexanone	ND	10	
1,3-Dichloropropane	ND	0.5	
Tetrachloroethene	ND	0.5	
Dibromochloromethane	ND	0.5	
1,2-Dibromoethane	ND	0.5	
Chlorobenzene	ND	0.5	
1,1,1,2-Tetrachloroethane	ND	0.5	
Ethylbenzene	ND	0.5	
m,p-Xylenes	ND	0.5	
o-Xylene	ND	0.5	
Styrene	ND	0.5	
Bromoform	ND	1.0	
Isopropylbenzene	ND	0.5	
1,1,2,2-Tetrachloroethane	ND	0.5	
1,2,3-Trichloropropane	ND	0.5	
Propylbenzene	ND	0.5	
Bromobenzene	ND	0.5	
1,3,5-Trimethylbenzene	ND	0.5	

ND= Not Detected RL= Reporting Limit Page 1 of 2



Purgeable Organics by GC/MS					
Lab #:	186609	Location:	Ft Bragg-Site Assessment		
Client:	Acton Mickelson Environmental	Prep:	EPA 5030B		
Project#:	16017.08	Analysis:	EPA 8260B		
Field ID:	SP-8.1-050306TB57	Batch#:	113428		
Lab ID:	186609-001	Sampled:	05/03/06		
Matrix:	Water	Received:	05/04/06		
Units:	ug/L	Analyzed:	05/15/06		
Diln Fac:	1.000	-			

Analyte	Result	RL	
2-Chlorotoluene	ND	0.5	
4-Chlorotoluene	ND	0.5	
tert-Butylbenzene	ND	0.5	
1,2,4-Trimethylbenzene	ND	0.5	
sec-Butylbenzene	ND	0.5	
para-Isopropyl Toluene	ND	0.5	
1,3-Dichlorobenzene	ND	0.5	
1,4-Dichlorobenzene	ND	0.5	
n-Butylbenzene	ND	0.5	
1,2-Dichlorobenzene	ND	0.5	
1,2-Dibromo-3-Chloropropane	ND	2.0	
1,2,4-Trichlorobenzene	ND	0.5	
Hexachlorobutadiene	ND	0.5	
Naphthalene	ND	2.0	
1,2,3-Trichlorobenzene	ND	0.5	

Surrogate	%REC	Limits
Dibromofluoromethane 1	116	80-120
1,2-Dichloroethane-d4 1	117	80-130
Toluene-d8 9	98	80-120
Bromofluorobenzene 1	101	80-122



Purgeable Organics by GC/MS					
Lab #:	186609	Location:	Ft Bragg-Site Assessment		
Client:	Acton Mickelson Environmental	Prep:	EPA 5030B		
Project#:	16017.08	Analysis:	EPA 8260B		
Field ID:	SP-8.1-050306	Batch#:	113428		
Lab ID:	186609-002	Sampled:	05/03/06		
Matrix:	Water	Received:	05/04/06		
Units:	ug/L	Analyzed:	05/15/06		
Diln Fac:	1.000				

Analyte	Result	RL	
Freon 12	ND	1.0	
Chloromethane	ND	1.0	
Vinyl Chloride	ND	0.5	
Bromomethane	ND	1.0	
Chloroethane	ND	1.0	
Ethanol	ND	1,000	
Trichlorofluoromethane	ND	1.0	
Isopropanol	ND	100	
Acetone	ND	10	
Freon 113	ND	0.5	
1,1-Dichloroethene	ND	0.5	
Methylene Chloride	ND	10	
Carbon Disulfide	ND	0.5	
MTBE	ND	0.5	
trans-1,2-Dichloroethene	ND	0.5	
Vinyl Acetate	ND	10	
1,1-Dichloroethane	ND	0.5	
2-Butanone	ND	10	
cis-1,2-Dichloroethene	ND	0.5	
2,2-Dichloropropane	ND	0.5	
Chloroform	ND	0.5	
Bromochloromethane	ND	0.5	
1,1,1-Trichloroethane	ND	0.5	
1,1-Dichloropropene	ND	0.5	
Carbon Tetrachloride	ND	0.5	
1,2-Dichloroethane	ND	0.5	
Benzene	ND	0.5	
Trichloroethene	ND	0.5	
1,2-Dichloropropane	ND	0.5	
Bromodichloromethane	ND	0.5	
Dibromomethane	ND	0.5	
4-Methyl-2-Pentanone	ND	10	
cis-1,3-Dichloropropene	ND	0.5	
Toluene	ND	0.5	
trans-1,3-Dichloropropene	ND	0.5	
1,1,2-Trichloroethane	ND	0.5	
2-Hexanone	ND	10	
1,3-Dichloropropane	ND	0.5	
Tetrachloroethene	ND	0.5	
Dibromochloromethane	ND	0.5	
1,2-Dibromoethane	ND	0.5	
Chlorobenzene	ND	0.5	
1,1,1,2-Tetrachloroethane	ND	0.5	
Ethylbenzene	ND	0.5	
m,p-Xylenes	ND	0.5	
o-Xylene	ND	0.5	
Styrene	ND	0.5	
Bromoform	ND	1.0	
Isopropylbenzene	ND	0.5	
1,1,2,2-Tetrachloroethane	ND	0.5	
1,2,3-Trichloropropane	ND	0.5	
Propylbenzene	ND	0.5	
Bromobenzene	ND	0.5	
1,3,5-Trimethylbenzene	ND	0.5	

ND= Not Detected RL= Reporting Limit Page 1 of 2



Purgeable Organics by GC/MS					
Lab #:	186609	Location:	Ft Bragg-Site Assessment		
Client:	Acton Mickelson Environmental	Prep:	EPA 5030B		
Project#:	16017.08	Analysis:	EPA 8260B		
Field ID:	SP-8.1-050306	Batch#:	113428		
Lab ID:	186609-002	Sampled:	05/03/06		
Matrix:	Water	Received:	05/04/06		
Units:	ug/L	Analyzed:	05/15/06		
Diln Fac:	1.000				

Analyte	Result	RL	
2-Chlorotoluene	ND	0.5	
4-Chlorotoluene	ND	0.5	
tert-Butylbenzene	ND	0.5	
1,2,4-Trimethylbenzene	ND	0.5	
sec-Butylbenzene	ND	0.5	
para-Isopropyl Toluene	ND	0.5	
1,3-Dichlorobenzene	ND	0.5	
1,4-Dichlorobenzene	ND	0.5	
n-Butylbenzene	ND	0.5	
1,2-Dichlorobenzene	ND	0.5	
1,2-Dibromo-3-Chloropropane	ND	2.0	
1,2,4-Trichlorobenzene	ND	0.5	
Hexachlorobutadiene	ND	0.5	
Naphthalene	ND	2.0	
1,2,3-Trichlorobenzene	ND	0.5	

Surrogate %RE	C I	Limits
Dibromofluoromethane 117	3	30-120
1,2-Dichloroethane-d4 121	8	80-130
Toluene-d8 100	8	80-120
Bromofluorobenzene 101	3	80-122



Polychlorinated Biphenyl Congeners								
Lab #:	186609	Location:	Ft Bragg-Site Assessment					
Client:	Acton Mickelson Environmental	Prep:	EPA 3520C					
Project#:	16017.08	Analysis:	EPA 8082					
Field ID:	SP-8.1-050306	Batch#:	113268					
Lab ID:	186609-002	Sampled:	05/03/06					
Matrix:	Water	Received:	05/04/06					
Units:	ug/L	Prepared:	05/10/06					
Diln Fac:	1.000	Analyzed:	05/17/06					

Analyte	Result	RL	MDL
BZ# 8	ND	0.050	0.0093
BZ# 18	ND	0.050	0.013
BZ# 28	ND	0.050	0.012
BZ# 52	ND	0.050	0.015
BZ# 44	ND	0.050	0.014
BZ# 66	ND	0.050	0.013
BZ# 101	ND	0.050	0.011
BZ# 81	ND	0.050	0.011
BZ# 77	ND	0.050	0.015
BZ# 123	ND	0.050	0.011
BZ# 118	ND	0.050	0.012
BZ# 114	ND	0.050	0.012
BZ# 153	ND	0.050	0.011
BZ# 105	ND	0.050	0.011
BZ# 138	ND	0.050	0.011
BZ# 187	ND	0.050	0.014
BZ# 126	ND	0.050	0.011
BZ# 128	ND	0.050	0.012
BZ# 167	ND	0.050	0.010
BZ# 156	ND	0.050	0.019
BZ# 157	ND	0.050	0.013
BZ# 180	ND	0.050	0.012
BZ# 170	ND	0.050	0.011
BZ# 169	ND	0.050	0.014
BZ# 189	ND	0.050	0.012
BZ# 195	ND	0.050	0.011
BZ# 206	ND	0.050	0.010
BZ# 209	ND	0.050	0.012

Surrogate	%REC	Limits	
TCMX	93	37-140	
BZ# 205	116	37-140	

ND= Not Detected

RL= Reporting Limit

MDL= Method Detection Limit

Page 1 of 1

15.0



Polynuclear Aromatics by HPLC								
Lab #:	186609	Location:	Ft Bragg-Site Assessment					
Client:	Acton Mickelson Environmental	Prep:	EPA 3520C					
Project#:	16017.08	Analysis:	EPA 8310					
Field ID:	SP-8.1-050306	Batch#:	113166					
Lab ID:	186609-002	Sampled:	05/03/06					
Matrix:	Water	Received:	05/04/06					
Units:	ug/L	Prepared:	05/08/06					
Diln Fac:	1.000	Analyzed:	05/11/06					

Analyte	Result	RL	MDL
Naphthalene	ND	0.95	0.09
Acenaphthylene	ND	1.9	0.23
Acenaphthene	ND	0.95	0.31
Fluorene	ND	0.19	0.03
Phenanthrene	ND	0.10	0.007
Anthracene	ND	0.10	0.02
Fluoranthene	ND	0.19	0.01
Pyrene	ND	0.10	0.01
Benzo(a)anthracene	ND	0.10	0.01
Chrysene	ND	0.10	0.009
Benzo(b)fluoranthene	ND	0.19	0.01
Benzo(k)fluoranthene	ND	0.10	0.008
Benzo(a)pyrene	ND	0.10	0.02
Dibenz(a,h)anthracene	ND	0.19	0.02
Benzo(g,h,i)perylene	ND	0.19	0.02
Indeno(1,2,3-cd)pyrene	ND	0.10	0.009

Surrogate	%REC	Limits
1-Methylnaphthalene (UV)	99	65-120
1-Methylnaphthalene (F)	92	65-120

ND= Not Detected

RL= Reporting Limit

MDL= Method Detection Limit



Dissolved California Title 26 Metals								
Lab #: 186609		Project#:	16017.08					
Client: Acton M	ckelson Environmental	Location:	Ft Bragg-Site Assessment					
Field ID:	SP-8.1-050306	Diln Fac:	1.000					
Lab ID:	186609-002	Sampled:	05/03/06					
Matrix:	Filtrate	Received:	05/04/06					
Units:	ug/L							

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	An	alysis
Antimony	ND	1.0	113598	05/18/06	05/18/06	200.8	EPA	6020
Arsenic	ND	1.0	113598	05/18/06	05/18/06	200.8	EPA	6020
Barium	85	1.0	113598	05/18/06	05/18/06	200.8	EPA	6020
Beryllium	ND	1.0	113598	05/18/06	05/18/06	200.8	EPA	6020
Cadmium	ND	1.0	113598	05/18/06	05/18/06	200.8	EPA	6020
Chromium	ND	1.0	113598	05/18/06	05/18/06	200.8	EPA	6020
Cobalt	ND	1.0	113598	05/18/06	05/18/06	200.8	EPA	6020
Copper	1.5	1.0	113598	05/18/06	05/18/06	200.8	EPA	6020
Lead	ND	1.0	113598	05/18/06	05/18/06	200.8	EPA	6020
Mercury	ND	0.20	113476	05/16/06	05/16/06	METHOD	EPA	7470A
Molybdenum	ND	1.0	113598	05/18/06	05/18/06	200.8	EPA	6020
Nickel	4.3	1.0	113598	05/18/06	05/18/06	200.8	EPA	6020
Selenium	ND	1.0	113598	05/18/06	05/18/06	200.8	EPA	6020
Silver	ND	1.0	113598	05/18/06	05/18/06	200.8	EPA	6020
Thallium	ND	1.0	113598	05/18/06	05/18/06	200.8	EPA	6020
Vanadium	ND	1.0	113598	05/18/06	05/18/06	200.8	EPA	6020
Zinc	13	1.0	113598	05/18/06	05/18/06	200.8	EPA	6020

			vironmental,	Inc.⊈	ξ	tard T	AT			Pag	e	o1			T	Chain	of Cus	tody		*~
			Request Form		RUS	H TAT] 24	hr.	ΓΑΤ		4	18 hr	. TAT			72 hr.	TAT	5 d	ay TAT
Geotracker Glob Send Results to: 5175 Hillsdale Circ El Dorado Hills, CA (916) 939-7550, FA Attn.:	cle, Suite 100 A 95762 X (916) 939-7570 Heglie	X X X	Preliminary Fax Result Sample Receipt/ Log-In C Electronic Data Deliverab Geotracker EDF Raw Data Deliverables Call with Verbal Results	les		Matrix	Container	Number of Containers	Preservative	de di	Step P	in Car		S. J.		w ac	district of the state of the st	diam		>
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186609-001		SEE	P-3-050304 TB57	5/3/06	0900	Rw	ł	3	yes	X	X	***************************************						I .	14a11m t 1220050)
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Received by: S-4-06		1400		Received by:																
Relinquished by: Received by:						Relino			y:											
Matrix: W - Water; DW - Dri RW - Reagent Water; S - S Container: GB - Glass Bott P - Polythethylene; GJ - Gla	oil; SE - Sediment; SV - 9 lle (Amber); V - 40 ml VOA Iss Jar, SC - Summa Can	Soil Vapo Vial; Bī ster; TD	GW - Ground Water; WW - Waste r; AA - Ambient Air; WS - Waste (; F, ST, PT - Brass, Steel, and Plasti - Tedlar Acid; HN - Nitric Acid; Na - Sodium	Solid); O - Othe c Tube;	er F Other S		lame lumbe		ocation 160 how	on: 17.	Fo 08	I M	cx //	Gre	20 Y	Plu- Receivi	Paci nglab: L	Sic Surty	Sawmi S & To	W mp kn



June 01, 2006

Curtis & Tompkins, Ltd. 2323 Fifth Street Berkeley, CA 94710

Attn: Lisa Brooker

RE: 186873 Ft Bragg-Site Assessment

SAMPLE IDENTIFICATION

Fraction	Client Sample Description	
01A	SP-1.4-051606	
02A	SP-1.3-051606	
03A	SP-1.2-051606	
04A	SP-4.1-051606	

Order No.:

0605427

Invoice No.: 58509

PO No.:

ELAP No. 1247-Expires July 2006

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

All solid results are expressed on a wetweight basis unless otherwise noted.

REPORT CERTIFIED BY

Laboratory Supervisor(s)

QA Unit

Jesse G. Chaney Jr

Jesse G. Chaney, Jr. Laboratory Director Date:

01-Jun-06

WorkOrder:

0605427

Client Sample ID: SP-1.4-051606

ANALYTICAL REPORT

Received: 5/18/06

Collected: 5/16/06 8:00

Lab ID: 0605427-01A

Parameter

Test Name: Tannin and Lignin

Result

ND

Limit 0.10 Units mg/L

 \mathbf{DF} 1.0

Reference: Std. Meth. 19th Ed. 5550 B

Extracted

Analyzed 5/31/06

Tannin and Lignin

Client Sample ID: SP-1.3-051606

Received: 5/18/06

Collected: 5/16/06 10:03

Lab ID: 0605427-02A

Test Name: Tannin and Lignin

Parameter

Result ND Limit

Units 0.10 mg/L

DF 1.0

Reference: Std. Meth. 19th Ed. 5550 B

Analyzed Extracted 5/31/06

Tannin and Lignin

Collected: 5/16/06 12:30

Lab ID: 0605427-03A

Test Name: Tannin and Lignin

Parameter Tannin and Lignin

Result . 0.24

0.33

Limit 0.10 **Units** mg/L

Received: 5/18/06

Units

mg/L

Received: 5/18/06

DF 1.0

Reference: Std. Meth. 19th Ed. 5550 B Extracted

Collected: 5/16/06 0:00

Analyzed 5/31/06

Client Sample ID: SP-4.1-051606

Client Sample ID: SP-1.2-051606

Lab ID: 0605427-04A

Test Name: Tannin and Lignin

Result

Parameter Tannin and Lignin

Limit

0.10

Reference: Std. Meth. 19th Ed. 5550 B

DF 1.0

Extracted

Analyzed 5/31/06

North Coast Laboratories, Ltd.

CLIENT: Curtis & Tompkins, Ltd.

Work Order: 0605427

186873 Ft Bragg-Site Assessment

Project:

0605427

QC SUMMARY REPORT

Date: 01-Jun-06

Method Blank

Qual %RPD RPDLimit Prep Date LowLimit HighLimit RPD Ref Val Analysis Date 5/31/06 596609 SeqNo: % Rec Units: mg/L SPK value SPK Ref Val WC_060531B Test Code: TANLIW Limit 0.10 Run ID: Result 2 Batch ID: R41545 Sample ID MBLK Tannin and Lignin Client ID: Analyte

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

R - RPD outside accepted recovery limits

Date: 01-Jun-06

CLIENT: Cur Work Order: 060 Project: 186	Curtis & Tompkins, Ltd. 0605427 186873 Ft Bragg-Site Assessment	#						QC SUMMARY REPORT Laboratory Control Spike	MARY oratory (JMMARY REPORT Laboratory Control Spike	RT oike
Sample ID LCS	Batch ID: R41545	Test Code: TANLIW	TANLIW	Units: mg/L		Analysis D	Analysis Date 5/31/06		Prep Date	0].
Client ID:		Run ID:	WC_060531B			SeqNo:	596610			,	
Analyte	Result	Limit	SPK value	SPK value SPK Ref Val	% Rec	LowLimit H	% Rec LowLimit HighLimit RPD Ref Val	Ref Val	%RPD	RPDLimit	Qual
Tannin and Lignin	1.097	0.10	1.00	0	110%	90	120	0			
Sample ID LCSD	Batch ID: R41545	Test Code: TANLIW	TANLIW	Units: mg/L		Analysis E	Analysis Date 5/31/06	. ,	Prep Date	Φ	
Client ID:		Run ID:	WC_060531B			SeqNo:	596611				
Analyte	Result	Limit		SPK value SPK Ref Val	% Rec	LowLimit	LowLimit HighLimit RPD Ref Val	Ref Val	%RPD	RPDLimit	Qual
Tannin and Lignin	1.066	0.10	1.00	0	107%	06	120	1.10	2.87%	20	

ND - Not Detected at the Reporting Limit Qualifiers:

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits



June 02, 2006

Curtis & Tompkins, Ltd. 2323 Fifth Street Berkeley, CA 94710

Attn: Lisa Brooker

RE: 186894 Ft Bragg-Site Assessment

SAMPLE IDENTIFICATION

Client Sample Description	
SP-1.1-051706	
SP-10.1-051706	
SP-8.1-051706	
	SP-1.1-051706 SP-10.1-051706

Order No.:

0605471

Invoice No.:

58511

PO No.:

ELAP No. 1247-Expires July 2006

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

All solid results are expressed on a wetweight basis unless otherwise noted.

REPORT CERTIFIED BY

Laboratory Supervisor(s)

QA Unit

Jesse G. Chaney, Jr. Laboratory Director Date:

01-Jun-06

WorkOrder: 0605471

Client Sample ID: SP-1.1-051706

Received: 5/19/06

Collected: 5/17/06 8:00

ANALYTICAL REPORT

Lab ID: 0605471-01A

Test Name: Tannin and Lignin

Reference: Std. Meth. 19th Ed. 5550 B

 \mathbf{DF}

Analyzed Extracted

Parameter

Tannin and Lignin

Result ND Limit 0.10 Units mg/L

1.0

5/31/06

Client Sample ID: SP-10.1-051706

Lab ID: 0605471-02A

Received: 5/19/06

Collected: 5/17/06 9:00

Test Name: Tannin and Lignin

Reference: Std. Meth. 19th Ed. 5550 B

Parameter

Tannin and Lignin

Result ND Limit 0.10 Units mg/L

Received: 5/19/06

DF 1.0

Extracted Analyzed

5/31/06

Client Sample ID: SP-8.1-051706

Lab ID: 0605471-03A

Test Name: Tannin and Lignin

Reference: Std. Meth. 19th Ed. 5550 B

Parameter

Tannin and Lignin

Result 0.38 Limit 0.10 Units mg/L

DF 1.0

Analyzed Extracted

Collected: 5/17/06 14:40

5/31/06

North Coast Laboratories, Ltd.

CLIENT: Curtis & Tompkins, Ltd.

Work Order: 0605471

186894 Ft Bragg-Site Assessment

Project:

QC SUMMARY REPORT

Date: 02-Jun-06

Method Blank

Sample ID MBLK	Batch ID: R41545	Test Code: TANLIW	Units: mg/L	Analysis Date 5/31/06	Prep Date	
Client ID:		Run ID: WC_060531B		SeqNo: 596609		
Analyte	Result	Limit SPK value SPK Ref Val		% Rec LowLimit HighLimit RPD Ref Val	%RPD RPDLimit	Qual
Tannin and Lignin	QN	0.10				

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

Laboratory Control Spike

QC SUMMARY REPORT

North Coast Laboratories, Ltd.

Curtis & Tompkins, Ltd. CLIENT:

0605471 Work Order: 186894 Ft Bragg-Site Assessment

Project:

Client ID: Analyte

RPDLimit %RPD RPDLimit Prep Date Prep Date %RPD 2.87% 1.10 0 LowLimit HighLimit RPD Ref Val % Rec LowLimit HighLimit RPD Ref Val Analysis Date 5/31/06 Analysis Date 5/31/06 596611 596610 120 120 SedNo: SeqNo: 8 8 % Rec 107% .110% SPK value SPK Ref Val Units: mg/L SPK value SPK Ref Val Units: mg/L Run ID: WC_060531B WC_060531B 1.00 1.00 Test Code: TANLIW Test Code: TANLIW Limit Limit 0.10 0.10 Run (D: Result 1.066 Result 1.097 Batch ID: R41545 Batch ID: R41545 Sample ID LCSD Tannin and Lignin Sample ID LCS

Tannin and Lignin

Client ID:

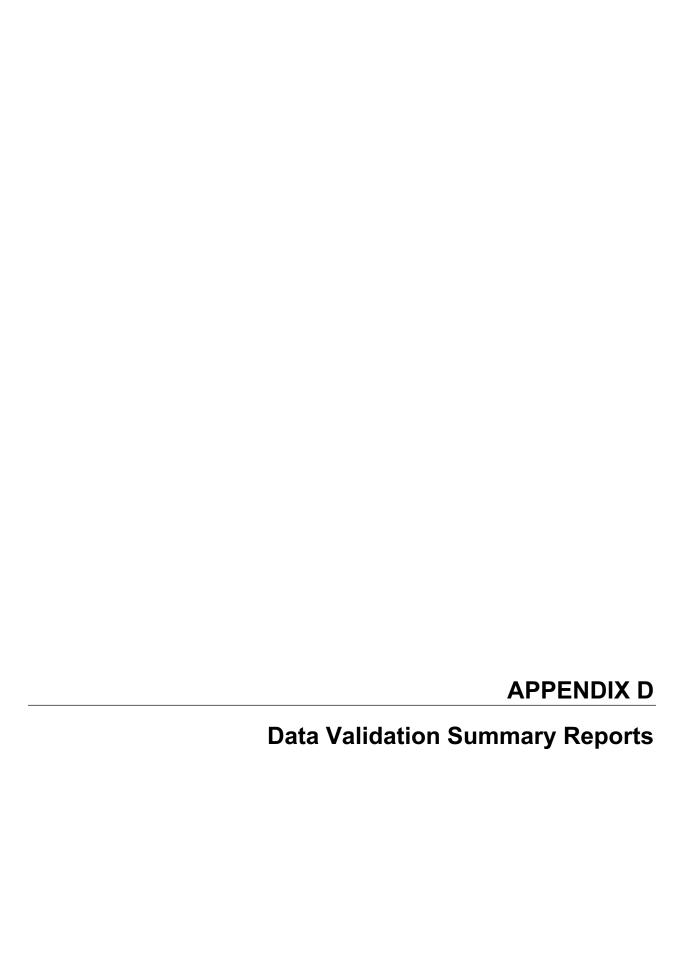
Analyte

Qual

20

Qual

S - Spike Recovery outside accepted recovery limits



Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Location: 90 West Redwood Avenue, Fort Bragg, California

Project Number: 16017.01

Project Activity: Quarterly Ground Water Monitoring, Second Quarter 2006

Laboratory: Curtis & Tompkins Ltd., Berkeley, California

Sample Deliverable Group: 186873 Sample Date: 5/17/06 Sample Matrix Types: Water

Samples: See attached Table 1.

Qualified Data: No data qualified.

Report Date Final: 9/7/06

Review By: Grace M. Willis

This quality assurance review is in accordance with the *Quality Assurance Plan (QAP)*, which is Appendix C of the Acton • Mickelson • Environmental, Inc., June 9, 2005, *Work Plan for Additional Site Assessment, Georgia-Pacific California Wood Products Manufacturing Facility.* Referenced guidance documents include U.S. EPA, January 2005, *US EPA Contract Laboratory Program, National Functional Guidelines for Superfund Organic Methods Review, Draft Final*, USEPA-540-R-04-009, U.S. EPA, October 1999, *US EPA Contract Laboratory Program, National Functional Guidelines for Organic Data Review*, EPA 540/R-99/008 and U.S. EPA, July 2002, *US EPA Contract Laboratory Program, National Functional Guidelines for Inorganic Data Review*, EPA 540/R-01/008.

ABBREVIATIONS USED IN THIS REPORT

LCS laboratory control sample MDL method detection limit

MS/MSD matrix spike/matrix spike duplicate

NA not analyzed

PAH polynuclear aromatics

PCB polychlorinated biphenyl congeners

PQL practical quantitation limit QAP quality assurance plan

RL reporting limit

RPD relative percent difference VOCs volatile organic compounds

°C degrees Celsius μg/l micrograms per liter %REC percent recovery Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Number: 16017.01 Sample Deliverable Group: 186873 Report Date Final: 9/7/06

ORGANIC DATA

I. SUMMARY OF PROBLEMS/ COMMENTS

Overall, the data quality is good and the data are acceptable for use.

Completeness: The analytical results are within the QAQ-specified ranges for data usability.

II. DATA VERIFICATION REVIEW

SAMPLE COLLECTION AND CHAIN OF CUSTODY. REMARKS: No exceptions noted.

SAMPLE RECEIPT, INCLUDING CONDITION AND PRESERVATION, REMARKS: No exceptions noted. Laboratory case narrative stated that samples were received cold and intact.

SAMPLE PREPARATION, SAMPLE CLEANUP METHOD, REMARKS: No exceptions noted. Silica gel clean-up was used for SEMI 8015B Total Extractable Hydrocarbons.

SAMPLE ANALYSIS, INCLUDING ANALYTICAL METHOD AND PROJECT SPECIFIC REPORTING LIMITS:

Method Analysis	Matrix	No.	No.	Note
		Samples	Exceptions	
8015B (TPHg)	Water	5	0	Used MDL
8015B (TPHd, motor oil)	Water	4	0	Used MDL
8082 (PCBs)	Water	4	0	Used MDL
8260B (VOCs)	Water	5	0	Used MDL
8310 (PAHs)	Water	4	0	Used MDL

REMARKS:

Page 3 of 12

Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Number: 16017.01 Sample Deliverable Group: 186873 Report Date Final: 9/7/06

III. SAMPLE HOLDING TIMES (water only)

Method Analysis	No. Samples	No. Late
8015B (TPHg)	5	0
8015B (TPHd, motor oil)	4	0
8082 (PCBs)	4	0

REMARKS:

None.

IV. LABORATORY CONTROL SAMPLES (water only)

Method Analysis	Result
8015B (TPHg)	A
8015B (TPHd, motor oil)	A
8082 (PCBs)	A
8260B (VOCs)	A
8270C (SVOCs)	A
8310 (PAHs)	A

A - Acceptable – all criteria met.

P - Provisional – some criteria not met; data useable. See remarks.

U - Unacceptable - criteria not met; data unusable. See remarks

REMARKS:

C&T will at times use the terms BS and BSD. It is equivalent to LCS & LCSD and utilized whenever there is inadequate sample volume to run MS/MSD.

Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Number: 16017.01 Sample Deliverable Group: 186873 Report Date Final: 9/7/06

V. METHOD BLANK ANALYSIS (water only)

Method Analysis	Result
8015B (TPHg)	A
8015B (TPHd, motor oil)	A
8082 (PCBs)	A
8260B (VOCs)	A
8310 (PAHs)	A

A - Acceptable – all criteria met.

P - Provisional – some criteria not met; data useable. See remarks.

U - Unacceptable - criteria not met; data unusable. See remarks.

REMARKS: Method blanks were contaminated as shown below: None.

VI. SURROGATE SPIKE RESULTS (water only)

Method Analysis	No.	No.	No.
	Samples	Samples J	Samples R
8015B (TPHg)	5	0	0
8015B (TPHd, motor oil)	4	0	0
8082 (PCBs)	4	0	0
8260B (VOCs)	5	0	0
8310 (PAHs)	4	0	0

REMARKS:

Page 5 of 12

Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Number: 16017.01 Sample Deliverable Group: 186873 Report Date Final: 9/7/06

VII. MATRIX SPIKE RESULTS (water only)

Method Analysis	No.	No.	No.
	Samples	Samples J	Samples R
8015B (TPHg)	5	0	0
8015B (TPHd, motor oil)	4	0	0
8082 (PCBs)	4	0	0
8260B (VOCs)	5	0	0
8310 (PAHs)	4	0	0

REMARKS:

None.

VIII. MATRIX SPIKE DUPLICATE RESULTS (water only)

Method Analysis	No.	No.	No.
-	Samples	Samples J	Samples R
8015B (TPHg)	5	0	0
8015B (TPHd, motor oil)	4	0	0
8082 (PCBs)	4	0	0
8260B (VOCs)	5	0	0
8310 (PAHs)	4	0	0

REMARKS:

Page 6 of 12

Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Number: 16017.01 Sample Deliverable Group: 186873 Report Date Final: 9/7/06

IX. FIELD DUPLICATE SAMPLE RESULTS (water only)

Method Analysis	Result
8015B (TPHg)	NA
8015B (TPHd, motor oil)	NA
8082 (PCBs)	NA
8260B (VOCs)	NA
8270C (SVOCs)	NA
8310 (PAHs)	NA

- A Acceptable the same compounds were identified in the primary and duplicate samples with minor differences in concentration
- P Provisional the same compounds were identified in the primary and duplicate samples with major differences in concentration. These discrepancies could cause the data to be useful only for limited purposes.
- U Unacceptable differences were found in compound identifications in the primary and duplicate samples. These discrepancies could cause the results for this fraction to be used for limited purposes or be considered unusable.

REMARKS:

No field duplicates were collected with this sample group.

X. TRIP BLANK SAMPLE RESULTS (water only)

Method Analysis	Result
8015B (TPHg)	A
8015B (TPHd, motor oil)	NA

- A Acceptable No contaminants above minimum detection limits; no interference with sample results.
- P Provisional Contaminants present but minimal interference with sample results.
- U Unacceptable Gross contamination, too much interference to use data for certain components or the entire fraction.

REMARKS:

Page 7 of 12

Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Number: 16017.01 Sample Deliverable Group: 186873 Report Date Final: 9/7/06

XI. EQUIPMENT BLANK SAMPLE RESULTS

Equipment blanks were not collected. Sampling equipment consisted of dedicated tubing at each sampling point and a peristaltic pump.

XII. SUMMARY OF QUALIFIED DATA

No data was qualified in this section of the review.

Page 8 of 12

Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Number: 16017.01 Sample Deliverable Group: 186873 Report Date Final: 9/7/06

INORGANIC DATA

I. SUMMARY OF PROBLEMS/ COMMENTS

Overall, the data quality is good and the data are acceptable for use.

Completeness: The analytical results are with the QAQ-specified ranges for data usability.

II. DATA VERIFICATION REVIEW

SAMPLE COLLECTION AND CHAIN OF CUSTODY, REMARKS: No exceptions noted.

SAMPLE RECEIPT, INCLUDING CONDITION AND PRESERVATION, FIELD FILTRATION, REMARKS:

No exceptions noted. Dissolved metal samples WERE field filtered.

SAMPLE PREPARATION, SAMPLE CLEANUP METHOD, REMARKS: No exceptions noted.

SAMPLE ANALYSIS, INCLUDING ANALYTICAL METHOD AND PROJECT SPECIFIC REPORTING LIMITS:

Method Analysis	Matrix	No.	No.	Note
		Samples	Exceptions	
EPA 6020 (metals)	Water	4	0	Used PQL
EPA 7470A (mercury)	Water	4	0	Used PQL

REMARKS:

None.

III. SAMPLE HOLDING TIMES (water only)

Method Analysis	No. Samples	No. Late
EPA 6020/7470A (metals)	4	0

REMARKS:

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Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Number: 16017.01 Sample Deliverable Group: 186873 Report Date Final: 9/7/06

IV. LABORATORY CONTROL SAMPLES (water only)

Method Analysis	Result
EPA 6020/7470A (metals)	A

- A Acceptable all criteria met.
- P Provisional some criteria not met; data useable. See remarks.
- U Unacceptable criteria not met; data unuseable. See remarks

REMARKS:

C&T will at times use the terms BS and BSD. It is equivalent to LCS & LCSD and utilized whenever there is inadequate sample volume to run MS/MSD.

V. METHOD BLANK ANALYSIS (water only)

Method Analysis	Result
EPA 6020/7470A (metals)	A

- A Acceptable no contaminants above minimum detection limits; no interference with sample results.
- P Provisional contaminants present but minimal interference with sample results.
- U Unacceptable gross contamination, too much interference to use data for certain components or the entire fraction.

REMARKS: Method blanks were contaminated as shown below: None.

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Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Number: 16017.01 Sample Deliverable Group: 186873 Report Date Final: 9/7/06

VI. MATRIX SPIKE RESULTS (water only)

Method Analysis	No.	No.	No.
	Samples	Samples J	Samples R
EPA 6020/7470A (metals)	4	0	0

REMARKS:

None.

VII. MATRIX SPIKE DUPLICATE RESULTS (water only)

Method Analysis	No.	No.	No.
	Samples	Samples J	Samples R
EPA 6020/7470A (metals)	4	0	0

REMARKS:

None.

VIII. FIELD DUPLICATE SAMPLE RESULTS (water only)

Method Analysis	Result
EPA 6020/7470A (metals)	NA

- A Acceptable the same compounds were identified in the primary and duplicate samples with minor differences in concentration
- P Provisional the same compounds were identified in the primary and duplicate samples with major differences in concentration. These discrepancies could cause the data to be useful only for limited purposes.
- U Unacceptable differences were found in compound identifications in the primary and duplicate samples. These discrepancies could cause the results for this fraction to be used for limited purposes or be considered unusable.

REMARKS:

No field duplicates were collected with this sample group.

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Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Number: 16017.01 Sample Deliverable Group: 186873 Report Date Final: 9/7/06

IX. EQUIPMENT BLANK SAMPLE RESULTS

Equipment blanks were not collected. Sampling equipment consisted of dedicated tubing at each sampling point and a peristaltic pump.

X. SUMMARY OF QUALIFIED DATA

No data was qualified in this section of the review.

DATA VALIDATION REPORTPage 12 of 12

Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Name: Georgia-P Project Number: 16017.01 Sample Deliverable Group: 186873 Report Date Final: 9/7/06

TABLE 1 SAMPLES INCLUDED IN THIS QUALITY ASSURANCE REVIEW

Location	Sample ID	Sample Date	Matrix	Туре	Lab ID	Receipt Date	ID on COC
SP-1.4	SP-1.4-051606	05/16/06	water	Normal Environmental Sample	186873-01	05/17/06	SP-1.4-051606
SP-1.3	SP-1.3-051606	05/16/06	water	Normal Environmental Sample	186873-02	05/17/06	SP-1.3-051606
SP-1.3	SP-1.3-051606TB58	05/16/06	water	Trip Blank	186873-03	05/17/06	SP-1.3-051606TB58
SP-1.2	SP-1.2-051606	05/16/06	water	Normal Environmental Sample	186873-04	05/17/06	SP-1.2-051606
SP-4.1	SP-4.1-051606	05/16/06	water	Normal Environmental Sample	186873-05	05/17/06	SP-4.1-051606

Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Location: 90 West Redwood Avenue, Fort Bragg, California

Project Number: 16017.01

Project Activity: Quarterly Ground Water Monitoring, Second Quarter 2006

Laboratory: Curtis & Tompkins Ltd., Berkeley, California

Sample Deliverable Group: 186894 Sample Date: 5/17/06 Sample Matrix Types: Water

Samples: See attached Table 1.

Qualified Data: No data qualified.

Report Date Final: 9/7/06

Review By: Grace M. Willis

This quality assurance review is in accordance with the *Quality Assurance Plan (QAP)*, which is Appendix C of the Acton • Mickelson • Environmental, Inc., June 9, 2005, *Work Plan for Additional Site Assessment, Georgia-Pacific California Wood Products Manufacturing Facility.* Referenced guidance documents include U.S. EPA, January 2005, *US EPA Contract Laboratory Program, National Functional Guidelines for Superfund Organic Methods Review, Draft Final*, USEPA-540-R-04-009, U.S. EPA, October 1999, *US EPA Contract Laboratory Program, National Functional Guidelines for Organic Data Review*, EPA 540/R-99/008 and U.S. EPA, July 2002, *US EPA Contract Laboratory Program, National Functional Guidelines for Inorganic Data Review*, EPA 540/R-01/008.

ABBREVIATIONS USED IN THIS REPORT

LCS laboratory control sample MDL method detection limit

MS/MSD matrix spike/matrix spike duplicate

NA not analyzed

PAH polynuclear aromatics

PCB polychlorinated biphenyl congeners

PQL practical quantitation limit QAP quality assurance plan

RL reporting limit

RPD relative percent difference VOCs volatile organic compounds

°C degrees Celsius μg/l micrograms per liter %REC percent recovery Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Number: 16017.01 Sample Deliverable Group: 186894 Report Date Final: 9/7/06

ORGANIC DATA

I. SUMMARY OF PROBLEMS/ COMMENTS

Overall, the data quality is good and the data are acceptable for use.

Completeness: The analytical results are within the QAQ-specified ranges for data usability.

II. DATA VERIFICATION REVIEW

SAMPLE COLLECTION AND CHAIN OF CUSTODY. REMARKS: No exceptions noted.

SAMPLE RECEIPT, INCLUDING CONDITION AND PRESERVATION, REMARKS: No exceptions noted. Laboratory case narrative stated that samples were received cold and intact.

SAMPLE PREPARATION, SAMPLE CLEANUP METHOD, REMARKS: No exceptions noted. Silica gel clean-up was used for SEMI 8015B Total Extractable Hydrocarbons.

SAMPLE ANALYSIS, INCLUDING ANALYTICAL METHOD AND PROJECT SPECIFIC REPORTING LIMITS:

Method Analysis	Matrix	No.	No.	Note
		Samples	Exceptions	
8015B (TPHg)	Water	3	0	Used MDL
8015B (TPHd, motor oil)	Water	2	0	Used MDL
8082 (PCBs)	Water	2	0	Used MDL
8260B (VOCs)	Water	3	0	Used MDL
8310 (PAHs)	Water	2	0	Used MDL

REMARKS:

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Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Number: 16017.01 Sample Deliverable Group: 186894 Report Date Final: 9/7/06

III. SAMPLE HOLDING TIMES (water only)

Method Analysis	No. Samples	No. Late
8015B (TPHg)	3	
8015B (TPHd, motor oil)	2	
8082 (PCBs)	2	

REMARKS:

None.

IV. LABORATORY CONTROL SAMPLES (water only)

Method Analysis	Result
8015B (TPHg)	A
8015B (TPHd, motor oil)	A
8082 (PCBs)	A
8260B (VOCs)	A
8270C (SVOCs)	A
8310 (PAHs)	A

A - Acceptable – all criteria met.

P - Provisional – some criteria not met; data useable. See remarks.

U - Unacceptable - criteria not met; data unusable. See remarks

REMARKS:

C&T will at times use the terms BS and BSD. It is equivalent to LCS & LCSD and utilized whenever there is inadequate sample volume to run MS/MSD.

V. METHOD BLANK ANALYSIS (water only)

Method Analysis	Result
8015B (TPHg)	A
8015B (TPHd, motor oil)	A
8082 (PCBs)	A
8260B (VOCs)	A
8310 (PAHs)	A

A - Acceptable – all criteria met.

P - Provisional – some criteria not met; data useable. See remarks.

U - Unacceptable - criteria not met; data unusable. See remarks.

REMARKS: Method blanks were contaminated as shown below: None.

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Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Number: 16017.01 Sample Deliverable Group: 186894 Report Date Final: 9/7/06

VI. SURROGATE SPIKE RESULTS (water only)

Method Analysis	No. No.		No.
	Samples	Samples J	Samples R
8015B (TPHg)	3	0	0
8015B (TPHd, motor oil)	2	0	0
8082 (PCBs)	2	0	0
8260B (VOCs)	3	0	0
8310 (PAHs)	2	0	0

REMARKS:

1. High surrogate recovery was observed for 1,2-dichloroethane-d4 in SP-10.1-051706 (lab # 186894-003); no target analytes were detected in the sample. No data were qualified.

VII. MATRIX SPIKE RESULTS (water only)

Method Analysis	No.	No.	No.
-	Samples	Samples J	Samples R
8015B (TPHg)	3	0	0
8015B (TPHd, motor oil)	2	0	0
8082 (PCBs)	2	0	0
8260B (VOCs)	3	0	0
8310 (PAHs)	2	0	0

REMARKS:

None.

VIII. MATRIX SPIKE DUPLICATE RESULTS (water only)

Method Analysis	No.	No.	No.	
	Samples	Samples J	Samples R	
8015B (TPHg)	3	0	0	
8015B (TPHd, motor oil)	2	0	0	
8082 (PCBs)	2	0	0	
8260B (VOCs)	3	0	0	
8310 (PAHs)	2	0	0	

REMARKS:

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Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Number: 16017.01 Sample Deliverable Group: 186894 Report Date Final: 9/7/06

IX. FIELD DUPLICATE SAMPLE RESULTS (water only)

Method Analysis	Result
8015B (TPHg)	NA
8015B (TPHd, motor oil)	NA
8082 (PCBs)	NA
8260B (VOCs)	NA
8270C (SVOCs)	NA
8310 (PAHs)	NA

- A Acceptable the same compounds were identified in the primary and duplicate samples with minor differences in concentration
- P Provisional the same compounds were identified in the primary and duplicate samples with major differences in concentration. These discrepancies could cause the data to be useful only for limited purposes.
- U Unacceptable differences were found in compound identifications in the primary and duplicate samples. These discrepancies could cause the results for this fraction to be used for limited purposes or be considered unusable.

REMARKS:

No field duplicates were collected with this sample group.

X. TRIP BLANK SAMPLE RESULTS (water only)

Method Analysis	Result
8015B (TPHg)	A
8015B (TPHd, motor oil)	NA

- A Acceptable No contaminants above minimum detection limits; no interference with sample results.
- P Provisional Contaminants present but minimal interference with sample results.
- U Unacceptable Gross contamination, too much interference to use data for certain components or the entire fraction.

REMARKS:

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Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Number: 16017.01 Sample Deliverable Group: 186894 Report Date Final: 9/7/06

XI. EQUIPMENT BLANK SAMPLE RESULTS

Equipment blanks were not collected. Sampling equipment consisted of dedicated tubing at each sampling point and a peristaltic pump.

XII. SUMMARY OF QUALIFIED DATA

No data was qualified in this section of the review.

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Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Number: 16017.01 Sample Deliverable Group: 186894 Report Date Final: 9/7/06

INORGANIC DATA

I. SUMMARY OF PROBLEMS/ COMMENTS

Overall, the data quality is good and the data are acceptable for use.

Completeness: The analytical results are with the QAQ-specified ranges for data usability.

II. DATA VERIFICATION REVIEW

SAMPLE COLLECTION AND CHAIN OF CUSTODY, REMARKS: No exceptions noted.

SAMPLE RECEIPT, INCLUDING CONDITION AND PRESERVATION, FIELD FILTRATION, REMARKS:

No exceptions noted. Dissolved metal samples WERE field filtered.

SAMPLE PREPARATION, SAMPLE CLEANUP METHOD, REMARKS: No exceptions noted.

SAMPLE ANALYSIS, INCLUDING ANALYTICAL METHOD AND PROJECT SPECIFIC REPORTING LIMITS:

Method Analysis	Matrix	No.	No.	Note
		Samples	Exceptions	
EPA 6020 (metals)	Water	2	0	Used PQL
EPA 7470A (mercury)	Water	2	0	Used PQL

REMARKS:

None.

III. SAMPLE HOLDING TIMES (water only)

Method Analysis	No. Samples	No. Late
EPA 6020/7470A (metals)	2	0

REMARKS:

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Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Number: 16017.01 Sample Deliverable Group: 186894 Report Date Final: 9/7/06

IV. LABORATORY CONTROL SAMPLES (water only)

Method Analysis	Result
EPA 6020/7470A (metals)	A

- A Acceptable all criteria met.
- P Provisional some criteria not met; data useable. See remarks.
- U Unacceptable criteria not met; data unuseable. See remarks

REMARKS:

C&T will at times use the terms BS and BSD. It is equivalent to LCS & LCSD and utilized whenever there is inadequate sample volume to run MS/MSD.

V. METHOD BLANK ANALYSIS (water only)

Method Analysis	Result
EPA 6020/7470A (metals)	A

- A Acceptable no contaminants above minimum detection limits; no interference with sample results.
- P Provisional contaminants present but minimal interference with sample results.
- U Unacceptable gross contamination, too much interference to use data for certain components or the entire fraction.

REMARKS: Method blanks were contaminated as shown below: None.

VI. MATRIX SPIKE RESULTS (water only)

Method Analysis	No.	No.	No.
	Samples	Samples J	Samples R
EPA 6020/7470A (metals)	2	0	0

REMARKS:

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Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Number: 16017.01 Sample Deliverable Group: 186894 Report Date Final: 9/7/06

VII. MATRIX SPIKE DUPLICATE RESULTS (water only)

Method Analysis	No.	No.	No.
	Samples	Samples J	Samples R
EPA 6020/7470A (metals)	2	0	0

REMARKS:

None.

VIII. FIELD DUPLICATE SAMPLE RESULTS (water only)

Method Analysis	Result
EPA 6020/7470A (metals)	NA

- A Acceptable the same compounds were identified in the primary and duplicate samples with minor differences in concentration
- P Provisional the same compounds were identified in the primary and duplicate samples with major differences in concentration. These discrepancies could cause the data to be useful only for limited purposes.
- U Unacceptable differences were found in compound identifications in the primary and duplicate samples. These discrepancies could cause the results for this fraction to be used for limited purposes or be considered unusable.

REMARKS:

No field duplicates were collected with this sample group.

IX. EQUIPMENT BLANK SAMPLE RESULTS

Equipment blanks were not collected. Sampling equipment consisted of dedicated tubing at each sampling point and a peristaltic pump.

X. SUMMARY OF QUALIFIED DATA

No data was qualified in this section of the review.

DATA VALIDATION REPORT Page 10 of 10

Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Name: Georgia-P Project Number: 16017.01 Sample Deliverable Group: 186894 Report Date Final: 9/7/06

TABLE 1 SAMPLES INCLUDED IN THIS QUALITY ASSURANCE REVIEW

Location	Sample ID	Sample Date	Matrix	Туре	Lab ID	Receipt Date	ID on COC
SP-1.1	SP-1.1-051706	05/17/06	water	Normal Environmental Sample	186894-01	05/18/06	SP-1.1-051706
SP-1.1	SP-1.1-051706TB59	05/17/06	water	Trip Blank	186894-02	05/18/06	SP-1.1-051706TB59
SP-10.1	SP-10.1-051706	05/17/06	water	Normal Environmental Sample	186894-03	05/18/06	SP-10.1-051706
SP-8.1	SP-8.1-051706	05/17/06	water	Normal Environmental Sample	186894-04	05/18/06	SP-8.1-051706

Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Location: 90 West Redwood Avenue, Fort Bragg, California

Project Number: 16017.01

Project Activity: Quarterly Ground Water Monitoring, Second Quarter 2006

Laboratory: Curtis & Tompkins Ltd., Berkeley, California

Sample Deliverable Group: 187024 Sample Date: 5/22/06 Sample Matrix Types: Water

Samples: See attached Table 1.

Qualified Data: See attached Table 2.

Report Date Final: 9/7/06

Review By: Grace M. Willis

This quality assurance review is in accordance with the *Quality Assurance Plan (QAP)*, which is Appendix C of the Acton • Mickelson • Environmental, Inc., June 9, 2005, *Work Plan for Additional Site Assessment, Georgia-Pacific California Wood Products Manufacturing Facility.* Referenced guidance documents include U.S. EPA, January 2005, *US EPA Contract Laboratory Program, National Functional Guidelines for Superfund Organic Methods Review, Draft Final*, USEPA-540-R-04-009, U.S. EPA, October 1999, *US EPA Contract Laboratory Program, National Functional Guidelines for Organic Data Review*, EPA 540/R-99/008 and U.S. EPA, July 2002, *US EPA Contract Laboratory Program, National Functional Guidelines for Inorganic Data Review*, EPA 540/R-01/008.

ABBREVIATIONS USED IN THIS REPORT

LCS laboratory control sample MDL method detection limit

MS/MSD matrix spike/matrix spike duplicate

NA not analyzed

PAH polynuclear aromatics

PCB polychlorinated biphenyl congeners

PQL practical quantitation limit QAP quality assurance plan

RL reporting limit

RPD relative percent difference
VOCs\ volatile organic compounds
SVOCs semi-volatile organic compounds

°C degrees Celsius μg/l micrograms per liter %REC percent recovery Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Number: 16017.01 Sample Deliverable Group: 187024 Report Date Final: 9/7/06

ORGANIC DATA

I. SUMMARY OF PROBLEMS/ COMMENTS

Overall, the data quality is good and the data are acceptable for use. A portion of the data has been qualified due to method blank contaminations and trip blank contaminations.

Completeness: The analytical results are within the QAQ-specified ranges for data usability.

II. DATA VERIFICATION REVIEW

SAMPLE COLLECTION AND CHAIN OF CUSTODY. REMARKS: No exceptions noted.

SAMPLE RECEIPT, INCLUDING CONDITION AND PRESERVATION, REMARKS: No exceptions noted. Laboratory case narrative stated that samples were received cold and intact.

SAMPLE PREPARATION, SAMPLE CLEANUP METHOD, REMARKS: No exceptions noted. Silica gel clean-up was used for SEMI 8015B Total Extractable Hydrocarbons.

SAMPLE ANALYSIS, INCLUDING ANALYTICAL METHOD AND PROJECT SPECIFIC REPORTING LIMITS:

Method Analysis	Matrix	No.	No.	Note
		Samples	Exceptions	
8015B (TPHg)	Water	17	0	Used MDL
8015B (TPHd, motor oil)	Water	16	1	Used MDL
8082 (PCBs)	Water	16	0	Used MDL
8260B (VOCs)	Water	16	0	Used MDL
8270C (SVOCs)	Water	17	0	Used MDL
8310 (PAHs)	Water	16	0	Used MDL

REMARKS:

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Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Number: 16017.01 Sample Deliverable Group: 187024 Report Date Final: 9/7/06

III. SAMPLE HOLDING TIMES (water only)

Method Analysis	No. Samples	No. Late
8015B (TPHg)	17	0
8015B (TPHd, motor oil)	16	0
8082 (PCBs)	16	0

REMARKS:

None.

IV. LABORATORY CONTROL SAMPLES (water only)

Method Analysis	Result
8015B (TPHg)	A
8015B (TPHd, motor oil)	A
8082 (PCBs)	A
8260B (VOCs)	A
8270C (SVOCs)	A
8310 (PAHs)	A

A - Acceptable – all criteria met.

P - Provisional – some criteria not met; data useable. See remarks.

U - Unacceptable - criteria not met; data unusable. See remarks

REMARKS:

C&T will at times use the terms BS and BSD. It is equivalent to LCS & LCSD and utilized whenever there is inadequate sample volume to run MS/MSD.

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Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Number: 16017.01 Sample Deliverable Group: 187024 Report Date Final: 9/7/06

V. METHOD BLANK ANALYSIS (water only)

Method Analysis	Result
8015B (TPHg)	A
8015B (TPHd, motor oil)	A
8082 (PCBs)	A
8260B (VOCs)	P
8270C (SVOCs)	A
8310 (PAHs)	A

- A Acceptable all criteria met.
- P Provisional some criteria not met; data useable. See remarks.
- U Unacceptable criteria not met; data unusable. See remarks.

REMARKS: Method blanks were contaminated as shown below:

Many analytes were detected in the 4 batch blanks. Samples with detections for analytes between the MDL and the RL that had detections in the blanks samples were qualified "u".

VI. SURROGATE SPIKE RESULTS (water only)

Method Analysis	No.	No.	No.
	Samples	Samples J	Samples R
8015B (TPHg)	16	0	0
8015B (TPHd, motor oil)	16	0	0
8082 (PCBs)	16	0	0
8260B (VOCs)	16	0	0
8270C (SVOCs)	16	0	0
8310 (PAHs)	16	0	0

REMARKS:

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Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Number: 16017.01 Sample Deliverable Group: 187024 Report Date Final: 9/7/06

VII. MATRIX SPIKE RESULTS (water only)

Method Analysis	No.	No.	No.
	Samples	Samples J	Samples R
8015B (TPHg)	17	0	0
8015B (TPHd, motor oil)	16	0	0
8082 (PCBs)	16	0	0
8260B (VOCs)	17	0	0
8270C (SVOCs)	16	0	0
8310 (PAHs)	16	0	0

REMARKS:

None.

VIII. MATRIX SPIKE DUPLICATE RESULTS (water only)

Method Analysis	No.	No.	No.
-	Samples	Samples J	Samples R
8015B (TPHg)	17	0	0
8015B (TPHd, motor oil)	16	0	0
8082 (PCBs)	16	0	0
8260B (VOCs)	17	0	0
8270C (SVOCs)	16	0	0
8310 (PAHs)	16	0	0

REMARKS:

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Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Number: 16017.01 Sample Deliverable Group: 187024 Report Date Final: 9/7/06

IX. FIELD DUPLICATE SAMPLE RESULTS (water only)

Method Analysis	Result
8015B (TPHg)	A
8015B (TPHd, motor oil)	A
8082 (PCBs)	A
8260B (VOCs)	A
8270C (SVOCs)	A
8310 (PAHs)	A

- A Acceptable the same compounds were identified in the primary and duplicate samples with minor differences in concentration
- P Provisional the same compounds were identified in the primary and duplicate samples with major differences in concentration. These discrepancies could cause the data to be useful only for limited purposes.
- U Unacceptable differences were found in compound identifications in the primary and duplicate samples. These discrepancies could cause the results for this fraction to be used for limited purposes or be considered unusable.

REMARKS:

None.

Primary Sample ID MW-2.4-052206 Duplicate Sample ID: DUP-1-052206

Primary Sample ID MW-4.4-052206 Duplicate Sample ID: DUP-3-052206

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Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Number: 16017.01 Sample Deliverable Group: 187024 Report Date Final: 9/7/06

X. TRIP BLANK SAMPLE RESULTS (water only)

Method Analysis	Result
8015B (TPHg)	P
8015B (TPHd, motor oil)	NA

- A Acceptable No contaminants above minimum detection limits; no interference with sample results.
- P Provisional Contaminants present but minimal interference with sample results.
- U Unacceptable Gross contamination, too much interference to use data for certain components or the entire fraction.

REMARKS:

1. Actone and methylene chloride were detected in the trip blank at 1.0 μ g/l and 0.4 J μ g/l, respectively. Results that were less than 5 times the trip blank were qualified "u".

XI. EQUIPMENT BLANK SAMPLE RESULTS

Equipment blanks were not collected. Sampling equipment consisted of dedicated tubing at each sampling point and a peristaltic pump.

XII. SUMMARY OF QUALIFIED DATA

Data that have been assigned qualifiers as part of this review are listed on the attached Table 2.

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Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Number: 16017.01 Sample Deliverable Group: 187024 Report Date Final: 9/7/06

INORGANIC DATA

I. SUMMARY OF PROBLEMS/ COMMENTS

Overall, the data quality is good and the data are acceptable for use.

Completeness: The analytical results are with the QAQ-specified ranges for data usability.

II. DATA VERIFICATION REVIEW

SAMPLE COLLECTION AND CHAIN OF CUSTODY, REMARKS: No exceptions noted.

SAMPLE RECEIPT, INCLUDING CONDITION AND PRESERVATION, FIELD FILTRATION, REMARKS:

No exceptions noted. Dissolved metal samples WERE field filtered.

SAMPLE PREPARATION, SAMPLE CLEANUP METHOD, REMARKS: No exceptions noted.

SAMPLE ANALYSIS, INCLUDING ANALYTICAL METHOD AND PROJECT SPECIFIC REPORTING LIMITS:

Method Analysis	Matrix	No.	No.	Note
		Samples	Exceptions	
EPA 6020 (metals)	Water	16	0	Used PQL
EPA 7470A (mercury)	Water	16	0	Used PQL

REMARKS:

None.

III. SAMPLE HOLDING TIMES (water only)

Method Analysis	No. Samples	No. Late
EPA 6020/7470A (metals)	16	0

REMARKS:

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Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Number: 16017.01 Sample Deliverable Group: 187024 Report Date Final: 9/7/06

IV. LABORATORY CONTROL SAMPLES (water only)

Method Analysis	Result
EPA 6020/7470A (metals)	A

- A Acceptable all criteria met.
- P Provisional some criteria not met; data useable. See remarks.
- U Unacceptable criteria not met; data unuseable. See remarks

REMARKS:

C&T will at times use the terms BS and BSD. It is equivalent to LCS & LCSD and utilized whenever there is inadequate sample volume to run MS/MSD.

V. METHOD BLANK ANALYSIS (water only)

Method Analysis	Result
EPA 6020/7470A (metals)	A

- A Acceptable no contaminants above minimum detection limits; no interference with sample results.
- P Provisional contaminants present but minimal interference with sample results.
- U Unacceptable gross contamination, too much interference to use data for certain components or the entire fraction.

REMARKS: Method blanks were contaminated as shown below: None.

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Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Number: 16017.01 Sample Deliverable Group: 187024 Report Date Final: 9/7/06

VI. MATRIX SPIKE RESULTS (water only)

Method Analysis	No.	No.	No.
	Samples	Samples J	Samples R
EPA 6020/7470A (metals)	16	0	0

REMARKS:

None.

VII. MATRIX SPIKE DUPLICATE RESULTS (water only)

Method Analysis	No.	No.	No.
	Samples	Samples J	Samples R
EPA 6020/7470A (metals)	16	0	0

REMARKS:

None.

VIII. FIELD DUPLICATE SAMPLE RESULTS (water only)

Method Analysis	Result	
EPA 6020/7470A (metals)	NA	

- A Acceptable the same compounds were identified in the primary and duplicate samples with minor differences in concentration
- P Provisional the same compounds were identified in the primary and duplicate samples with major differences in concentration. These discrepancies could cause the data to be useful only for limited purposes.
- U Unacceptable differences were found in compound identifications in the primary and duplicate samples. These discrepancies could cause the results for this fraction to be used for limited purposes or be considered unusable.

REMARKS:

None.

Primary Sample ID MW-2.4-052206 Duplicate Sample ID: DUP-1-052206

Primary Sample ID MW-4.4-052206 Duplicate Sample ID: DUP-3-052206

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Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Number: 16017.01 Sample Deliverable Group: 187024 Report Date Final: 9/7/06

IX. EQUIPMENT BLANK SAMPLE RESULTS

Equipment blanks were not collected. Sampling equipment consisted of dedicated tubing at each sampling point and a peristaltic pump.

X. SUMMARY OF QUALIFIED DATA

No data was qualified in this section of the review.

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Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Name: Georgia-P Project Number: 16017.01 Sample Deliverable Group: 187024 Report Date Final: 9/7/06

TABLE 1 SAMPLES INCLUDED IN THIS QUALITY ASSURANCE REVIEW

Location	Sample ID	Sample Date	Matrix	Туре	Lab ID	Receipt Date	ID on COC
WM-2.1	WM-2.1-052206	05/22/06	water	Normal Environmental Sample	187024-01	05/23/06	WM-2.1-052206
MW-2.2	MW-2.2-052206	05/22/06	water	Normal Environmental Sample	187024-02	05/23/06	MW-2.2-052206
MW-2.3	MW-2.3-052206	05/22/06	water	Normal Environmental Sample	187024-03	05/23/06	MW-2.3-052206
MW-2.4	MW-2.4-052206	05/22/06	water	Normal Environmental Sample	187024-04	05/23/06	MW-2.4-052206
MW-2.5	MW-2.5-052206	05/22/06	water	Normal Environmental Sample	187024-05	05/23/06	MW-2.5-052206
MW-2.6	MW-2.6-052206	05/22/06	water	Normal Environmental Sample	187024-06	05/23/06	MW-2.6-052206
MW-4.1	MW-4.1-052206	05/22/06	water	Normal Environmental Sample	187024-07	05/23/06	MW-4.1-052206
MW-4.2	MW-4.2-052206	05/22/06	water	Normal Environmental Sample	187024-08	05/23/06	MW-4.2-052206
MW-4.3	MW-4.3-052206	05/22/06	water	Normal Environmental Sample	187024-09	05/23/06	MW-4.3-052206
MW-4.4	MW-4.4-052206	05/22/06	water	Normal Environmental Sample	187024-10	05/23/06	MW-4.4-052206
MW-5.6	MW-5.6-052206	05/22/06	water	Normal Environmental Sample	187024-11	05/23/06	MW-5.6-052206
MW-5.7	MW-5.7-052206	05/22/06	water	Normal Environmental Sample	187024-12	05/23/06	MW-5.7-052206
MW-5.8	MW-5.8-052206	05/22/06	water	Normal Environmental Sample	187024-13	05/23/06	MW-5.8-052206
MW-5.9	MW-5.9-052206	05/22/06	water	Normal Environmental Sample	187024-14	05/23/06	MW-5.9-052206
MW-2.4	DUP-1-052206	05/22/06	water	Field Duplicate	187024-15	05/23/06	DUP-1-052206
MW-4.4	DUP-3-052206	05/22/06	water	Field Duplicate	187024-16	05/23/06	DUP-3-052206
WM-2.1	WM-2.1-052206TB1	05/22/06	water	Trip Blank	187024-17	05/23/06	WM-2.1-052206TB1

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Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Name: Georgia-P Project Number: 16017.01 Sample Deliverable Group: 187024 Report Date Final: 9/7/06

TABLE 2 SUMMARY OF QUALIFIED DATA

Sample ID	Lab ID	Method	Analysis Date	Chemical	Result	Units	Detect Flag	Lab Qualifier	Review Qualifier	MDL	PQL
MW-2.6-052206	187024-006	EPA 8260B	6/1/2006	1,1,1-Trichloroethane	0.2	ug/l	Y	J	u	0.1	0.5
MW-2.1-052206	187024-001	EPA 8260B	6/2/2006	Acetone	0.9	ug/l	Y	J	u	0.9	10
MW-2.2-052206	187024-002	EPA 8260B	6/1/2006	Acetone	0.8	ug/l	Y	J	u	0.2	10
MW-2.3-052206	187024-003	EPA 8260B	6/1/2006	Acetone	0.9	ug/l	Y	J	u	0.2	10
MW-2.4-052206	187024-004	EPA 8260B	6/1/2006	Acetone	0.5	ug/l	Y	J	u	0.2	10
MW-2.5-052206	187024-005	EPA 8260B	6/1/2006	Acetone	0.8	ug/l	Y	J	u	0.2	10
MW-2.6-052206	187024-006	EPA 8260B	6/1/2006	Acetone	0.7	ug/l	Y	J	u	0.2	10
MW-4.1-052206	187024-007	EPA 8260B	6/2/2006	Acetone	0.9	ug/l	Y	J	u	0.2	10
MW-5.7-052206	187024-012	EPA 8260B	6/1/2006	Acetone	1.7	ug/l	Y	J	u	0.9	10
MW-5.9-052206	187024-014	EPA 8260B	6/1/2006	Acetone	0.9	ug/l	Y	J	u	0.9	10
MW-2.1-052206	187024-001	EPA 8260B	6/2/2006	Carbon Disulfide	0.04	ug/l	Y	J	u	0.03	0.5
MW-4.2-052206	187024-008	EPA 8260B	6/1/2006	Carbon Disulfide	0.05	ug/l	Y	J	u	0.03	0.5
MW-2.2-052206	187024-001	EPA 8260B	6/2/2006	Methylene Chloride	0.4	ug/l	Υ	J	u	0.2	10
MW-2.2-052206	187024-002	EPA 8260B	6/1/2006	Methylene Chloride	0.2	ug/l	Y	J	u	0.1	10
MW-2.3-052206	187024-003	EPA 8260B	6/1/2006	Methylene Chloride	0.2	ug/l	Y	J	u	0.1	10
MW-4.1-052206	187024-007	EPA 8260B	6/2/2006	Methylene Chloride	0.2	ug/l	Υ	J	u	0.1	10
MW-4.2-052206	187024-008	EPA 8260B	6/1/2006	Methylene Chloride	0.3	ug/l	Y	J	u	0.2	10
MW-4.3-052206	187024-009	EPA 8260B	6/1/2006	Methylene Chloride	0.3	ug/l	Y	J	u	0.2	10
MW-4.4-052206	187024-010	EPA 8260B	6/1/2006	Methylene Chloride	0.3	ug/l	Υ	J	u	0.2	10
MW-5.6-052206	187024-011	EPA 8260B	6/1/2006	Methylene Chloride	0.3	ug/l	Y	J	u	0.2	10
MW-5.9-052206	187024-014	EPA 8260B	6/1/2006	Methylene Chloride	0.4	ug/l	Y	J	u	0.2	10
DUP-1-052206	187024-015	EPA 8260B	6/1/2006	Methylene Chloride	0.3	ug/l	Y	J	u	0.2	10
DUP-3-052206	187024-016	EPA 8260B	6/1/2006	Methylene Chloride	0.3	ug/l	Y	J	u	0.2	10
MW-2.2-052206	187024-002	EPA 8260B	6/1/2006	Naphthalene	0.06	ug/l	Υ	J	u	0.06	2

Sample ID	Lab ID	Method	Analysis Date	Chemical	Result	Units	Detect Flag		Review Qualifier	MDL	PQL
MW-4.2-052206	187024-008	EPA 8260B	6/1/2006	Naphthalene	0.2	ug/l	Y	Jb	u	0.1	2
MW-4.3-052206	187024-009	EPA 8260B	6/1/2006	Naphthalene	0.1	ug/l	Y	Jb	u	0.1	2
MW-2.3-052206	187024-003	EPA 8260B	6/1/2006	n-Butylbenzene	0.1	ug/l	Υ	J	u	0.1	0.5
MW-2.2-052206	187024-002	EPA 8260B	6/1/2006	sec-Butylbenzene	0.6	ug/l	Y	J	u	0.06	0.5
MW-2.3-052206	187024-003	EPA 8260B	6/1/2006	sec-Butylbenzene	0.1	ug/l	Υ	J	u	0.06	0.5
MW-2.2-052206	187024-002	EPA 8260B	6/1/2006	Trichloroethene	0.2	ug/l	Υ	J	u	0.2	0.5
MW-2.3-052206	187024-003	EPA 8260B	6/1/2006	Trichloroethene	0.2	ug/l	Y	J	u	0.2	0.5

Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Location: 90 West Redwood Avenue, Fort Bragg, California

Project Number: 16017.01

Project Activity: Quarterly Ground Water Monitoring, Second Quarter 2006

Laboratory: Curtis & Tompkins Ltd., Berkeley, California

Sample Deliverable Group: 187061 Sample Date: 5/23/06 Sample Matrix Types: Water

Samples: See attached Table 1.

Qualified Data: See attached Table 2.

Report Date Final: 9/7/06

Review By: Grace M. Willis

This quality assurance review is in accordance with the *Quality Assurance Plan (QAP)*, which is Appendix C of the Acton • Mickelson • Environmental, Inc., June 9, 2005, *Work Plan for Additional Site Assessment, Georgia-Pacific California Wood Products Manufacturing Facility.* Referenced guidance documents include U.S. EPA, January 2005, *US EPA Contract Laboratory Program, National Functional Guidelines for Superfund Organic Methods Review, Draft Final*, USEPA-540-R-04-009, U.S. EPA, October 1999, *US EPA Contract Laboratory Program, National Functional Guidelines for Organic Data Review*, EPA 540/R-99/008 and U.S. EPA, July 2002, *US EPA Contract Laboratory Program, National Functional Guidelines for Inorganic Data Review*, EPA 540/R-01/008.

ABBREVIATIONS USED IN THIS REPORT

LCS laboratory control sample MDL method detection limit

MS/MSD matrix spike/matrix spike duplicate

NA not analyzed

PAH polynuclear aromatics

PCB polychlorinated biphenyl congeners

PQL practical quantitation limit QAP quality assurance plan

RL reporting limit

RPD relative percent difference
VOCs\ volatile organic compounds
SVOCs semi-volatile organic compounds

°C degrees Celsius μg/l micrograms per liter %REC percent recovery Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Number: 16017.01 Sample Deliverable Group: 187061 Report Date Final: 9/7/06

ORGANIC DATA

I. SUMMARY OF PROBLEMS/ COMMENTS

Overall, the data quality is good and the data are acceptable for use. A portion of the data has been qualified due to method blank contaminations and trip blank contaminations.

Completeness: The analytical results are within the QAQ-specified ranges for data usability.

II. DATA VERIFICATION REVIEW

SAMPLE COLLECTION AND CHAIN OF CUSTODY. REMARKS: No exceptions noted.

SAMPLE RECEIPT, INCLUDING CONDITION AND PRESERVATION, REMARKS: No exceptions noted. Laboratory case narrative stated that samples were received cold and intact.

SAMPLE PREPARATION, SAMPLE CLEANUP METHOD, REMARKS: No exceptions noted. Silica gel clean-up was used for SEMI 8015B Total Extractable Hydrocarbons.

SAMPLE ANALYSIS, INCLUDING ANALYTICAL METHOD AND PROJECT SPECIFIC REPORTING LIMITS:

Method Analysis	Matrix	No.	No.	Note
		Samples	Exceptions	
8015B (TPHg)	Water	17	0	Used MDL
8015B (TPHd, motor oil)	Water	16	0	Used MDL
8082 (PCBs)	Water	16	0	Used MDL
8260B (VOCs)	Water	17	0	Used MDL
8270C (SVOCs)	Water	16	0	Used MDL
8310 (PAHs)	Water	16	0	Used MDL

REMARKS:

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Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Number: 16017.01 Sample Deliverable Group: 187061 Report Date Final: 9/7/06

III. SAMPLE HOLDING TIMES (water only)

Method Analysis	No. Samples	No. Late
8015B (TPHg)	17	0
8015B (TPHd, motor oil)	16	0
8082 (PCBs)	16	0

REMARKS:

None.

IV. LABORATORY CONTROL SAMPLES (water only)

Method Analysis	Result
8015B (TPHg)	A
8015B (TPHd, motor oil)	A
8082 (PCBs)	A
8260B (VOCs)	A
8270C (SVOCs)	A
8310 (PAHs)	A

A - Acceptable – all criteria met.

P - Provisional – some criteria not met; data useable. See remarks.

U - Unacceptable - criteria not met; data unusable. See remarks

REMARKS:

C&T will at times use the terms BS and BSD. It is equivalent to LCS & LCSD and utilized whenever there is inadequate sample volume to run MS/MSD.

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Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Number: 16017.01 Sample Deliverable Group: 187061 Report Date Final: 9/7/06

V. METHOD BLANK ANALYSIS (water only)

Method Analysis	Result
8015B (TPHg)	A
8015B (TPHd, motor oil)	A
8082 (PCBs)	A
8260B (VOCs)	P
8270C (SVOCs)	P
8310 (PAHs)	A

- A Acceptable all criteria met.
- P Provisional some criteria not met; data useable. See remarks.
- U Unacceptable criteria not met; data unusable. See remarks.

REMARKS: Method blanks were contaminated as shown below:

- 1. Methylene chloride and acetone, common lab solvents, were detected in several of the method blank batches and were detected between the MDL and the RL in several samples. Samples with detections less than 10 times the blank contaminant level were qualified "u". Seven samples were qualified for methylene chloride and sixteen samples were qualified for acetone.
- 2. Bis(2-ethylhexyl)phthalate was detected in the method blank at 13 ug/l. Positive detections in the samples that were less than 5 times the blank detection were qualified "u". Non-detects were accepted.

VI. SURROGATE SPIKE RESULTS (water only)

Method Analysis	No.	No.	No.
	Samples	Samples J	Samples R
8015B (TPHg)	17	0	0
8015B (TPHd, motor oil)	16	0	0
8082 (PCBs)	16	0	0
8260B (VOCs)	17	0	0
8270C (SVOCs)	16	0	0
8310 (PAHs)	16	0	0

REMARKS:

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Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Number: 16017.01 Sample Deliverable Group: 187061 Report Date Final: 9/7/06

VII. MATRIX SPIKE RESULTS (water only)

Method Analysis	No.	No.	No.
	Samples	Samples J	Samples R
8015B (TPHg)	17	0	0
8015B (TPHd, motor oil)	16	0	0
8082 (PCBs)	16	0	0
8260B (VOCs)	17	0	0
8270C (SVOCs)	16	0	0
8310 (PAHs)	16	0	0

REMARKS:

None.

VIII. MATRIX SPIKE DUPLICATE RESULTS (water only)

Method Analysis	No.	No.	No.
	Samples	Samples J	Samples R
8015B (TPHg)	17	0	0
8015B (TPHd, motor oil)	16	0	0
8082 (PCBs)	16	0	0
8260B (VOCs)	17	0	0
8270C (SVOCs)	16	0	0
8310 (PAHs)	16	0	0

REMARKS:

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Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Number: 16017.01 Sample Deliverable Group: 187061 Report Date Final: 9/7/06

IX. FIELD DUPLICATE SAMPLE RESULTS (water only)

Method Analysis	Result
8015B (TPHg)	NA
8015B (TPHd, motor oil)	NA
8082 (PCBs)	NA
8260B (VOCs)	NA
8270C (SVOCs)	NA
8310 (PAHs)	NA

- A Acceptable the same compounds were identified in the primary and duplicate samples with minor differences in concentration
- P Provisional the same compounds were identified in the primary and duplicate samples with major differences in concentration. These discrepancies could cause the data to be useful only for limited purposes.
- U Unacceptable differences were found in compound identifications in the primary and duplicate samples. These discrepancies could cause the results for this fraction to be used for limited purposes or be considered unusable.

REMARKS:

No field duplicates were collected with this sample group.

X. TRIP BLANK SAMPLE RESULTS (water only)

Method Analysis	Result
8015B (TPHg)	P
8015B (TPHd, motor oil)	NA

- A Acceptable No contaminants above minimum detection limits; no interference with sample results.
- P Provisional Contaminants present but minimal interference with sample results.
- U Unacceptable Gross contamination, too much interference to use data for certain components or the entire fraction.

REMARKS:

1. TPHg was detected in the trip blank at 15 μ g/l. Results that were less than 5 times the trip blank were qualified "u". Three samples were affected.

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Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Number: 16017.01 Sample Deliverable Group: 187061 Report Date Final: 9/7/06

XI. EQUIPMENT BLANK SAMPLE RESULTS

Equipment blanks were not collected. Sampling equipment consisted of dedicated tubing at each sampling point and a peristaltic pump.

XII. SUMMARY OF QUALIFIED DATA

Data that have been assigned qualifiers as part of this review are listed on the attached Table 2.

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Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Number: 16017.01 Sample Deliverable Group: 187061 Report Date Final: 9/7/06

INORGANIC DATA

I. SUMMARY OF PROBLEMS/ COMMENTS

Overall, the data quality is good and the data are acceptable for use.

Completeness: The analytical results are with the QAQ-specified ranges for data usability.

II. DATA VERIFICATION REVIEW

SAMPLE COLLECTION AND CHAIN OF CUSTODY, REMARKS: No exceptions noted.

SAMPLE RECEIPT, INCLUDING CONDITION AND PRESERVATION, FIELD FILTRATION, REMARKS:

No exceptions noted. Dissolved metal samples WERE field filtered.

SAMPLE PREPARATION, SAMPLE CLEANUP METHOD, REMARKS: No exceptions noted.

SAMPLE ANALYSIS, INCLUDING ANALYTICAL METHOD AND PROJECT SPECIFIC REPORTING LIMITS:

Method Analysis	Matrix	No.	No.	Note
		Samples	Exceptions	
EPA 6020 (metals)	Water	16	0	Used PQL
EPA 7470A (mercury)	Water	16	0	Used PQL

REMARKS:

None.

III. SAMPLE HOLDING TIMES (water only)

Method Analysis	No. Samples	No. Late		
EPA 6020/7470A (metals)	16	0		

REMARKS:

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Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Number: 16017.01 Sample Deliverable Group: 187061 Report Date Final: 9/7/06

IV. LABORATORY CONTROL SAMPLES (water only)

Method Analysis	Result
EPA 6020/7470A (metals)	A

- A Acceptable all criteria met.
- P Provisional some criteria not met; data useable. See remarks.
- U Unacceptable criteria not met; data unuseable. See remarks

REMARKS:

C&T will at times use the terms BS and BSD. It is equivalent to LCS & LCSD and utilized whenever there is inadequate sample volume to run MS/MSD.

V. METHOD BLANK ANALYSIS (water only)

Method Analysis	Result
EPA 6020/7470A (metals)	A

- A Acceptable no contaminants above minimum detection limits; no interference with sample results.
- P Provisional contaminants present but minimal interference with sample results.
- U Unacceptable gross contamination, too much interference to use data for certain components or the entire fraction.

REMARKS: Method blanks were contaminated as shown below: None.

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Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Number: 16017.01 Sample Deliverable Group: 187061 Report Date Final: 9/7/06

VI. MATRIX SPIKE RESULTS (water only)

Method Analysis	No.	No.	No.
	Samples	Samples J	Samples R
EPA 6020/7470A (metals)	16	0	0

REMARKS:

None.

VII. MATRIX SPIKE DUPLICATE RESULTS (water only)

Method Analysis	No.	No.	No.	
	Samples	Samples J	Samples R	
EPA 6020/7470A (metals)	16	0	0	

REMARKS:

None.

VIII. FIELD DUPLICATE SAMPLE RESULTS (water only)

Method Analysis	Result
EPA 6020/7470A (metals)	NA

- A Acceptable the same compounds were identified in the primary and duplicate samples with minor differences in concentration
- P Provisional the same compounds were identified in the primary and duplicate samples with major differences in concentration. These discrepancies could cause the data to be useful only for limited purposes.
- U Unacceptable differences were found in compound identifications in the primary and duplicate samples. These discrepancies could cause the results for this fraction to be used for limited purposes or be considered unusable.

REMARKS:

No field duplicates were collected with this sample group.

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Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Number: 16017.01 Sample Deliverable Group: 187061 Report Date Final: 9/7/06

IX. EQUIPMENT BLANK SAMPLE RESULTS

Equipment blanks were not collected. Sampling equipment consisted of dedicated tubing at each sampling point and a peristaltic pump.

X. SUMMARY OF QUALIFIED DATA

No data was qualified in this section of the review.

DATA VALIDATION REPORTPage 12 of 14

Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Name: Georgia-P Project Number: 16017.01 Sample Deliverable Group: 187061 Report Date Final: 9/7/06

TABLE 1 SAMPLES INCLUDED IN THIS QUALITY ASSURANCE REVIEW

Location	Sample ID	Sample Date	Matrix	Туре	Lab ID	Receipt Date	ID on COC
MW-2.7	MW-2.7-052306	05/23/06	water	Normal Environmental Sample	187061-01	05/24/06	MW-2.7-052306
SP-3.1	SP-3.1-052306	05/23/06	water	Normal Environmental Sample	187061-02	05/24/06	SP-3.1-052306
MW-3.2	MW-3.2-052306	05/23/06	water	Normal Environmental Sample	187061-03	05/24/06	MW-3.2-052306
MW-3.3	MW-3.3-052306	05/23/06	water	Normal Environmental Sample	187061-04	05/24/06	MW-3.3-052306
MW-3.4	MW-3.4-052306	05/23/06	water	Normal Environmental Sample	187061-05	05/24/06	MW-3.4-052306
MW-3.5	MW-3.5-052306	05/23/06	water	Normal Environmental Sample	187061-06	05/24/06	MW-3.5-052306
MW-3.6	MW-3.6-052306	05/23/06	water	Normal Environmental Sample	187061-07	05/24/06	MW-3.6-052306
MW-3.7	MW-3.7-052306	05/23/06	water	Normal Environmental Sample	187061-08	05/24/06	MW-3.7-052306
MW-3.9	MW-3.9-052306	05/23/06	water	Normal Environmental Sample	187061-09	05/24/06	MW-3.9-052306
MW-5.1	MW-5.1-052306	05/23/06	water	Normal Environmental Sample	187061-10	05/24/06	MW-5.1-052306
MW-5.3	MW-5.3-052306	05/23/06	water	Normal Environmental Sample	187061-11	05/24/06	MW-5.3-052306
MW-5.4	MW-5.4-052306	05/23/06	water	Normal Environmental Sample	187061-12	05/24/06	MW-5.4-052306
MW-5.5	MW-5.5-052306	05/23/06	water	Normal Environmental Sample	187061-13	05/24/06	MW-5.5-052306
MW-5.10	MW-5.10-052306	05/23/06	water	Normal Environmental Sample	187061-14	05/24/06	MW-5.10-052306
MW-5.11	MW-5.11-052306	05/23/06	water	Normal Environmental Sample	187061-15	05/24/06	MW-5.11-052306
MW-5.13	MW-5.13-052306	05/23/06	water	Normal Environmental Sample	187061-16	05/24/06	MW-5.13-052306
MW-2.7	MW-2.7-052306TB2	05/23/06	water	Trip Blank	187061-17	05/24/06	MW-2.7-052306TB2

DATA VALIDATION REPORT Page 13 of 14

Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Name: Georgia-P Project Number: 16017.01 Sample Deliverable Group: 187061 Report Date Final: 9/7/06

TABLE 2 SUMMARY OF QUALIFIED DATA

Sample ID	Lab ID	Method	Analysis Date	Chemical	Result	Units	Detect Flag	Lab Qualifier	Review Qualifier	MDL	PQL
MW-2.7-052306	187061-01	8260B	6/2/06	methylene chloride	0.1	μg/l	Y	J	u	0.1	10
MW-5.3-052306	187061-11	8260B	6/2/06	methylene chloride	0.4	μg/l	Y	J	u	0.1	10
MW-5.4-052306	187061-12	8260B	6/2/06	methylene chloride	0.4	μg/l	Y	J	u	0.1	10
MW-5.5-052306	187061-13	8260B	6/2/06	methylene chloride	0.4	μg/l	Y	J	u	0.1	10
MW-5.10-052306	187061-14	8260B	6/2/06	methylene chloride	0.2	μg/l	Y	J	u	0.1	10
MW-5.11-052306	187061-16	8260B	6/5/06	methylene chloride	0.2	μg/l	Y	J	u	0.1	10
MW-2.7-052306TB2	187061-17	8260B	6/2/06	methylene chloride	0.4	μg/l	Y	J	u	0.1	10
MW-2.7-052306	187061-01	8260B	6/2/06	acetone	0.8	μg/l	Y	J	u	0.1	10
SP-3.1-052306	187061-02	8260B	6/2/06	acetone	0.6	μg/l	Y	J	u	0.1	10
MW-3.2-052306	187061-03	8260B	6/2/06	acetone	0.5	μg/l	Y	J	u	0.1	10
MW-3.3-052306	187061-04	8260B	6/2/06	acetone	0.6	μg/l	Y	J	u	0.1	10
MW-3.4-052306	187061-05	8260B	6/2/06	acetone	1.0	μg/l	Y	J	u	0.1	10
MW-3.5-052306	187061-06	8260B	6/2/06	acetone	0.5	μg/l	Y	J	u	0.1	10
MW-3.6-052306	187061-07	8260B	6/2/06	acetone	0.5	μg/l	Y	J	u	0.1	10
MW-3.7-052306	187061-08	8260B	6/2/06	acetone	0.8	μg/l	Y	J	u	0.1	10
MW-3.9-052306	187061-09	8260B	6/2/06	acetone	0.6	μg/l	Y	J	u	0.2	10
MW-5.1-052306	187061-10	8260B	6/2/06	acetone	1.7	μg/l	Y	J	u	0.2	10
MW-5.3-052306	187061-11	8260B	6/2/06	acetone	2.1	μg/l	Y	J	u	0.2	10
MW-5.4-052306	187061-12	8260B	6/2/06	acetone	1.9	μg/l	Y	J	u	0.2	10
MW-5.5-052306	187061-13	8260B	6/2/06	acetone	2.2	μg/l	Y	J	u	0.2	10
MW-5.10-052306	187061-14	8260B	6/3/06	acetone	1.0	μg/l	Y	J	u	0.2	10

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Project Name: Georgia-Pacific California Wood Products Manufacturing Facility
Project Number: 16017.01

Project Name: Georgia-Project Number: 16017.01 Sample Deliverable Group: 187061 Report Date Final: 9/7/06

Sample ID	Lab ID	Method	Analysis Date	Chemical	Result	Units	Detect Flag	Lab Qualifier	Review Qualifier	MDL	PQL
MW-5.11-052306	187061-15	8260B	6/5/06	acetone	1.4	μg/l	Y	J	u	0.2	10
MW-5.13-052306	187061-16	8260B	6/6/06	acetone	1.1	μg/l	Y	J	u	0.2	10
MW-3.4-052306	187061-05	8270C	6/2/06	bis(2-ethylhexyl)phthalate	3.8	μg/l	Y	JЬ	u	0.65	9.6
MW-3.5-052306	187061-06	8270C	6/2/06	bis(2-ethylhexyl)phthalate	3.8	μg/l	Y	JЬ	u	0.65	9.6
MW-3.9-052306	187061-09	8270C	6/2/06	bis(2-ethylhexyl)phthalate	3.7	μg/l	Y	JЬ	u	0.65	9.6
MW-5.1-052306	187061-10	8270C	6/2/06	bis(2-ethylhexyl)phthalate	4.0	μg/l	Y	JЬ	u	0.65	9.6
MW-5.3-052306	187061-11	8270C	6/2/06	bis(2-ethylhexyl)phthalate	4.1	μg/l	Y	JЬ	u	0.65	9.6
MW-5.10-052306	187061-14	8270C	6/2/06	bis(2-ethylhexyl)phthalate	4.0	μg/l	Y	JЬ	u	0.65	9.6
MW-5.11-052306	187061-15	8270C	6/6/06	bis(2-ethylhexyl)phthalate	20	μg/l	Y	b	u	0.52	9.8
MW-5.13-052306	187061-16	8270C	6/6/06	bis(2-ethylhexyl)phthalate	13	μg/l	Y	b	u	0.52	9.8
MW-3.2-052306	187061-03	8015B	5/25/06	gasoline(C6-C8)	12	μg/l	Y	J	u	10	50
MW-5.11-052306	187061-15	8015B	5/26/06	gasoline (C6-C8)	26	μg/l	Y	J	u	10	50
MW-5.13-052306	187061-16	8015B	5/26/06	gasoline (C6-C8)	17	μg/l	Y	J	u	10	50

Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Location: 90 West Redwood Avenue, Fort Bragg, California

Project Number: 16017.01

Project Activity: Quarterly Ground Water Monitoring, Second Quarter 2006

Laboratory: Curtis & Tompkins Ltd., Berkeley, California

Sample Deliverable Group: 187086 Sample Date: 5/24/06 Sample Matrix Types: Water

Samples: See attached Table 1.

Qualified Data: See attached Table 2.

Report Date Final: 9/7/06

Review By: Grace M. Willis

This quality assurance review is in accordance with the *Quality Assurance Plan (QAP)*, which is Appendix C of the Acton • Mickelson • Environmental, Inc., June 9, 2005, *Work Plan for Additional Site Assessment, Georgia-Pacific California Wood Products Manufacturing Facility.* Referenced guidance documents include U.S. EPA, January 2005, *US EPA Contract Laboratory Program, National Functional Guidelines for Superfund Organic Methods Review, Draft Final*, USEPA-540-R-04-009, U.S. EPA, October 1999, *US EPA Contract Laboratory Program, National Functional Guidelines for Organic Data Review*, EPA 540/R-99/008 and U.S. EPA, July 2002, *US EPA Contract Laboratory Program, National Functional Guidelines for Inorganic Data Review*, EPA 540/R-01/008.

ABBREVIATIONS USED IN THIS REPORT

LCS laboratory control sample MDL method detection limit

MS/MSD matrix spike/matrix spike duplicate

NA not analyzed

PAH polynuclear aromatics

PCB polychlorinated biphenyl congeners

PQL practical quantitation limit QAP quality assurance plan

RL reporting limit

RPD relative percent difference
VOCs\ volatile organic compounds
SVOCs semi-volatile organic compounds

°C degrees Celsius μg/l micrograms per liter %REC percent recovery

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Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Number: 16017.01 Sample Deliverable Group: 187086 Report Date Final: 9/7/06

ORGANIC DATA

I. SUMMARY OF PROBLEMS/ COMMENTS

Overall, the data quality is good and the data are acceptable for use. A portion of the data has been qualified due to method blank contaminations and field duplicate inconsistencies.

Completeness: The analytical results are within the QAQ-specified ranges for data usability.

II. DATA VERIFICATION REVIEW

SAMPLE COLLECTION AND CHAIN OF CUSTODY. REMARKS: No exceptions noted.

SAMPLE RECEIPT, INCLUDING CONDITION AND PRESERVATION, REMARKS: No exceptions noted. Laboratory case narrative stated that samples were received cold and intact.

SAMPLE PREPARATION, SAMPLE CLEANUP METHOD, REMARKS: Silica gel clean-up was used for SEMI 8015B Total Extractable Hydrocarbons, except for sample MW-10.1-052406.

SAMPLE ANALYSIS, INCLUDING ANALYTICAL METHOD AND PROJECT SPECIFIC REPORTING LIMITS:

Method Analysis	Matrix	No.	No.	Note
		Samples	Exceptions	
8015B (TPHg)	Water	10	0	Used MDL
8015B (TPHd, motor oil)	Water	9	1	Used MDL
8082 (PCBs)	Water	9	0	Used MDL
8260B (VOCs)	Water	9	0	Used MDL
8270C (SVOCs)	Water	10	0	Used MDL
8310 (PAHs)	Water	9	0	Used MDL

REMARKS:

Sample MW-10.1-052406 for TPH diesel and motor oil was analyzed without using silica gel cleanup (EPA 3630C) as requested.

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Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Number: 16017.01 Sample Deliverable Group: 187086 Report Date Final: 9/7/06

III. SAMPLE HOLDING TIMES (water only)

Method Analysis	No. Samples	No. Late
8015B (TPHg)	10	0
8015B (TPHd, motor oil)	9	0
8082 (PCBs)	9	0

REMARKS:

None.

IV. LABORATORY CONTROL SAMPLES (water only)

Method Analysis	Result
8015B (TPHg)	A
8015B (TPHd, motor oil)	A
8082 (PCBs)	A
8260B (VOCs)	A
8270C (SVOCs)	A
8310 (PAHs)	A

A - Acceptable – all criteria met.

P - Provisional – some criteria not met; data useable. See remarks.

U - Unacceptable - criteria not met; data unusable. See remarks

REMARKS:

C&T will at times use the terms BS and BSD. It is equivalent to LCS & LCSD and utilized whenever there is inadequate sample volume to run MS/MSD.

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Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Number: 16017.01 Sample Deliverable Group: 187086 Report Date Final: 9/7/06

V. METHOD BLANK ANALYSIS (water only)

Method Analysis	Result
8015B (TPHg)	P
8015B (TPHd, motor oil)	P
8082 (PCBs)	A
8260B (VOCs)	A
8270C (SVOCs)	A
8310 (PAHs)	A

- A Acceptable all criteria met.
- P Provisional some criteria not met; data useable. See remarks.
- U Unacceptable criteria not met; data unusable. See remarks.

REMARKS: Method blanks were contaminated as shown below:

- 1. Gasoline C6-C8 and gasoline C8-C10 were detected between the MDL and the RL in the method blank for batch 113900; samples with detections less than 5 times the blank contaminant level were qualified "u". Three samples were qualified.
- 2. Diesel C12-C16 and diesel C16-C24 were detected between the MDL and the RL in the method blank for batch 114122; samples with detections less than 5 times the blank contaminant level were qualified "u". Four samples were qualified.
- 3. Many SVOC analytes were detected between the MDL and the RL in the method blank for batch 114100 and the method blank for batch 114141; these analytes were not detected in samples at or above the RL.
- 4. Methylene chloride and acetone, common lab solvents, were detected in the method blank at $0.2~\mu g/l$ and $0.4~\mu g/l$, respectively, and were detected between the MDL and the RL in several samples. Samples with detections less than 10 times the blank contaminant level were qualified "u". Two samples were qualified for methylene chloride and x sample were qualified for acetone.

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Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Number: 16017.01 Sample Deliverable Group: 187086 Report Date Final: 9/7/06

VI. SURROGATE SPIKE RESULTS (water only)

Method Analysis	No. No.		No.
	Samples	Samples J	Samples R
8015B (TPHg)	10	0	0
8015B (TPHd, motor oil)	9	0	0
8082 (PCBs)	9	0	0
8260B (VOCs)	9	0	0
8270C (SVOCs)	10	0	0
8310 (PAHs)	9	0	0

REMARKS:

1. High surrogate recovery was observed for TCMX in the MS of MW-3.1-052406 (lab # 187086-001). No data were qualified.

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Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Number: 16017.01 Sample Deliverable Group: 187086 Report Date Final: 9/7/06

VII. MATRIX SPIKE RESULTS (water only)

Method Analysis	No. No.		No.
	Samples	Samples J	Samples R
8015B (TPHg)	9	0	0
8015B (TPHd, motor oil)	9	0	0
8082 (PCBs)	10	0	0
8260B (VOCs)	10	0	0
8270C (SVOCs)	10	0	0
8310 (PAHs)	10	0	0

REMARKS:

1. High recoveries were observed for pentachlorophenol in the MS/MSD of MW-3.1-052406 (lab #187086-001); the LCS was within limits, the associated RPD was within limits, and this analyte was not detected at or above the RL in the associated samples. No qualification was necessary.

VIII. MATRIX SPIKE DUPLICATE RESULTS (water only)

Method Analysis	No. No.		No.	
	Samples	Samples J	Samples R	
8015B (TPHg)	9	0	0	
8015B (TPHd, motor oil)	9	0	0	
8082 (PCBs)	10	0	0	
8260B (VOCs)	10	0	0	
8270C (SVOCs)	10	0	0	
8310 (PAHs)	10	0	0	

REMARKS:

- 1. High recoveries were observed for pentachlorophenol in the MS/MSD of MW-3.1-052406 (lab #187086-001); the LCS was within limits, the associated RPD was within limits, and this analyte was not detected at or above the RL in the associated samples. No qualification was necessary.
- 2. High recovery was observed for BZ# 77 in the MSD of MW-3.1-052406 (lab #187086-001); the LCS was within limits, the associated RPD was within limits, and this analyte was not detected at or above the RL in the associated samples.

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Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Number: 16017.01 Sample Deliverable Group: 187086 Report Date Final: 9/7/06

IX. FIELD DUPLICATE SAMPLE RESULTS (water only)

Method Analysis	Result
8015B (TPHg)	P
8015B (TPHd, motor oil)	P
8082 (PCBs)	A
8260B (VOCs)	A
8270C (SVOCs)	A
8310 (PAHs)	A

- A Acceptable the same compounds were identified in the primary and duplicate samples with minor differences in concentration
- P Provisional the same compounds were identified in the primary and duplicate samples with major differences in concentration. These discrepancies could cause the data to be useful only for limited purposes.
- U Unacceptable differences were found in compound identifications in the primary and duplicate samples. These discrepancies could cause the results for this fraction to be used for limited purposes or be considered unusable.

REMARKS: the sample group had two sets of field duplicates:

Primary Sample ID – MW-3.8-052406 Duplicate Sample ID – DUP-2-052406

Primary Sample ID – MW-5.12-052406 Duplicate Sample ID – DUP-4-052406

- 1. The duplicate comparison indicated an inconsistency in the results for gasoline C6-C8 and gasoline C8-C10 in both field duplicate samples; in each set one sample was ND and the other sample had results between the MDL and the RL. Since the result of the positive detection was not greater than 2X the quantitation limit, all positive detections are qualified with "uj" and all non-detects were accepted.
- 2. The duplicate comparison indicated an inconsistency in the results for diesel C16-C24 in one of the duplicate samples; one sample was ND and the other sample had results between the MDL and the RL. Since the result of the positive detection was not greater than 2X the quantitation limit, all positive detections are qualified with "uj" and all non-detects were accepted.

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Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Number: 16017.01 Sample Deliverable Group: 187086 Report Date Final: 9/7/06

X. TRIP BLANK SAMPLE RESULTS (water only)

Method Analysis	Result
8015B (TPHg)	NA
8015B (TPHd, motor oil)	NA

- A Acceptable No contaminants above minimum detection limits; no interference with sample results.
- P Provisional Contaminants present but minimal interference with sample results.
- U Unacceptable Gross contamination, too much interference to use data for certain components or the entire fraction.

REMARKS:

None.

XI. EQUIPMENT BLANK SAMPLE RESULTS

Equipment blanks were not collected. Sampling equipment consisted of dedicated tubing at each sampling point and a peristaltic pump.

XII. SUMMARY OF QUALIFIED DATA

Data that have been assigned qualifiers as part of this review are listed on the attached Table 2.

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Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Number: 16017.01 Sample Deliverable Group: 187086 Report Date Final: 9/7/06

INORGANIC DATA

I. SUMMARY OF PROBLEMS/ COMMENTS

Overall, the data quality is good and the data are acceptable for use.

Completeness: The analytical results are with the QAQ-specified ranges for data usability.

II. DATA VERIFICATION REVIEW

SAMPLE COLLECTION AND CHAIN OF CUSTODY, REMARKS: No exceptions noted.

SAMPLE RECEIPT, INCLUDING CONDITION AND PRESERVATION, FIELD FILTRATION, REMARKS:

No exceptions noted. Dissolved metal samples WERE field filtered.

SAMPLE PREPARATION, SAMPLE CLEANUP METHOD, REMARKS: No exceptions noted.

SAMPLE ANALYSIS, INCLUDING ANALYTICAL METHOD AND PROJECT SPECIFIC REPORTING LIMITS:

Method Analysis	Matrix	No.	No.	Note
		Samples	Exceptions	
EPA 6020 (metals)	Water	9	0	Used PQL
EPA 7470A (mercury)	Water	9	0	Used PQL

REMARKS:

None.

III. SAMPLE HOLDING TIMES (water only)

Method Analysis	No. Samples	No. Late
EPA 6020/7470A (metals)	9	0

REMARKS:

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Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Number: 16017.01 Sample Deliverable Group: 187086 Report Date Final: 9/7/06

IV. LABORATORY CONTROL SAMPLES (water only)

Method Analysis	Result
EPA 6020/7470A (metals)	A

- A Acceptable all criteria met.
- P Provisional some criteria not met; data useable. See remarks.
- U Unacceptable criteria not met; data unuseable. See remarks

REMARKS:

C&T will at times use the terms BS and BSD. It is equivalent to LCS & LCSD and utilized whenever there is inadequate sample volume to run MS/MSD.

V. METHOD BLANK ANALYSIS (water only)

Method Analysis	Result
EPA 6020/7470A (metals)	A

- A Acceptable no contaminants above minimum detection limits; no interference with sample results.
- P Provisional contaminants present but minimal interference with sample results.
- U Unacceptable gross contamination, too much interference to use data for certain components or the entire fraction.

REMARKS: Method blanks were contaminated as shown below: None.

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Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Number: 16017.01 Sample Deliverable Group: 187086 Report Date Final: 9/7/06

VI. MATRIX SPIKE RESULTS (water only)

Method Analysis	No.	No.	No.
	Samples	Samples J	Samples R
EPA 6020/7470A (metals)	9	0	0

REMARKS:

None.

VII. MATRIX SPIKE DUPLICATE RESULTS (water only)

Method Analysis	No. Samples	No. Samples J	No. Samples R
	Samples	Samples	Samples K
EPA 6020/7470A (metals)	9	0	0

REMARKS:

None.

VIII. FIELD DUPLICATE SAMPLE RESULTS (water only)

Method Analysis	Result
EPA 6020/7470A (metals)	A

- A Acceptable the same compounds were identified in the primary and duplicate samples with minor differences in concentration
- P Provisional the same compounds were identified in the primary and duplicate samples with major differences in concentration. These discrepancies could cause the data to be useful only for limited purposes.
- U Unacceptable differences were found in compound identifications in the primary and duplicate samples. These discrepancies could cause the results for this fraction to be used for limited purposes or be considered unusable.

REMARKS:

Primary Sample ID – MW-3.8-052406 Duplicate Sample ID – DUP-2-052406

Primary Sample ID – MW-5.12-052406 Duplicate Sample ID – DUP-4-052406

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Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Number: 16017.01 Sample Deliverable Group: 187086 Report Date Final: 9/7/06

IX. EQUIPMENT BLANK SAMPLE RESULTS

Equipment blanks were not collected. Sampling equipment consisted of dedicated tubing at each sampling point and a peristaltic pump.

X. SUMMARY OF QUALIFIED DATA

No data was qualified in this section of the review.

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Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Name: Georgia-P Project Number: 16017.01 Sample Deliverable Group: 187086 Report Date Final: 9/7/06

TABLE 1 SAMPLES INCLUDED IN THIS QUALITY ASSURANCE REVIEW

Location	Sample ID	Sample Date	Matrix	Туре	Lab ID	Receipt Date	ID on COC
MW-3.1	MW-3.1-052406	05/25/06	water	Normal Environmental Sample	187086-01	05/25/06	MW-3.1-052406
MW-3.8	MW-3.8-052406	05/25/06	water	Normal Environmental Sample	187086-02	05/25/06	MW-3.8-052406
MW-3.10	MW-3.10-052406	05/25/06	water	Normal Environmental Sample	187086-03	05/25/06	MW-3.10-052406
MW-3.11	MW-3.11-052406	05/25/06	water	Normal Environmental Sample	187086-04	05/25/06	MW-3.11-052406
MW-5.2	MW-5.2-052406	05/25/06	water	Normal Environmental Sample	187086-05	05/25/06	MW-5.2-052406
MW-5.12	MW-5.12-052406	05/25/06	water	Normal Environmental Sample	187086-06	05/25/06	MW-5.12-052406
MW-10.1	MW-10.1-052406	05/25/06	water	Normal Environmental Sample	187086-07	05/25/06	MW-10.1-052406
MW-3.8	DUP-2-052406	05/25/06	water	Field Duplicate	187086-08	05/25/06	DUP-2-052406
MW-5.12	DUP-4-052406	05/25/06	water	Field Duplicate	187086-09	05/25/06	DUP-4-052406
MW-5.2	MW-5.2-052406TB3	05/25/06	water	Trip Blank	187086-10	05/25/06	MW-5.2-052406TB3

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Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Name: Georgia-F Project Number: 16017.01 Sample Deliverable Group: 187086 Report Date Final: 9/7/06

TABLE 2 SUMMARY OF QUALIFIED DATA

Sample ID	Lab ID	Method	Analysis Date	Chemical	Result	Units	Detect Flag	Lab Qualifier	Review Qualifier	MDL	PQL
MW-3.1-052406	187086-01	8015B	5/26/06	gasoline C6-C8	12	μg/l	Y	J	u	6.7	50
MW-3.1-052406	187086-01	8015B	5/26/06	gasoline C8-C10	8.6	μg/l	Y	J	u	6.7	50
MW-10.1-052406	187086-07	8015B	5/30/06	gasoline C6-C8	7.2	μg/l	Y	J	u	4.8	50
MW-10.1-052406	187086-07	8015B	5/30/06	gasoline C8-C10	8.3	μg/l	Y	J	u	4.8	50
DUP-2-052406	187086-08	8015B	5/30/06	gasoline C6-C8	7.7	μg/l	Y	J	u	4.8	50
DUP-2-052406	187086-08	8015B	5/30/06	gasoline C8-C10	8.3	μg/l	Y	J	u	4.8	50
DUP-4-052406	187086-09	8015B	5/30/06	gasoline C6-C8	12	μg/l	Y	J	u	4.8	50
DUP-4-052406	187086-09	8015B	5/30/06	gasoline C8-C10	7.7	μg/l	Y	J	u	4.8	50
MW-3.8-052406	187086-02	8015B	6/07/06	diesel C16-C24	21	μg/l	Y	J	u	18	50
MW-3.10-052406	187086-03	8015B	6/08/06	diesel C16-C24	19	μg/l	Y	J	u	18	50
MW-5.2-052406	187086-05	8015B	6/08/06	diesel C16-C24	21	μg/l	Y	J	u	18	50
MW-10.1-052406	187086-07	8015B	6/08/06	diesel C16-C24	21	μg/l	Y	J	u	18	50
MW-3.1-052406	187086-01	8260B	6/5/06	methylene chloride	0.2	μg/l	Y	J	u	0.2	10
MW-5.2-052406TB3	187086-10	8260B	6/5/06	methylene chloride	0.4	μg/l	Y	J	u	0.2	10
MW-3.1-052406	187086-01	8260B	6/5/06	acetone	0.7	μg/l	Y	J	u	0.2	10
MW-3.8-052406	187086-02	8260B	6/5/06	acetone	0.6	μg/l	Y	J	u	0.2	10
MW-3.10-052406	187086-03	8260B	6/5/06	acetone	0.8	μg/l	Y	J	u	0.2	10
MW-3.11-052406	187086-04	8260B	6/5/06	acetone	0.4	μg/l	Y	J	u	0.2	10
MW-5.2-052406	187086-05	8260B	6/5/06	acetone	0.7	$\mu g/l$	Y	J	u	0.2	10
MW-5.12-052406	187086-06	8260B	6/5/06	acetone	0.7	$\mu g/l$	Y	J	u	0.2	10
MW-10.1-052406	187086-07	8260B	6/5/06	acetone	0.5	$\mu g/l$	Y	J	u	0.2	10
DUP-2-052406	187086-08	8260B	6/6/06	acetone	0.9	μg/l	Y	J	u	0.2	10

Sample ID	Lab ID	Method	Analysis Date	Chemical	Result	Units	Detect Flag	Lab Qualifier	Review Qualifier	MDL	PQL
DUP-4-052406	187086-09	8260B	6/6/06	acetone	0.5	μg/l	Y	J	u	0.2	10

Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Location: 90 West Redwood Avenue, Fort Bragg, California

Project Number: 16017.01

Project Activity: Quarterly Ground Water Monitoring, Second Quarter 2006

Laboratory: Curtis & Tompkins Ltd., Berkeley, California

Sample Deliverable Group: 187109 Sample Date: 5/25/06 Sample Matrix Types: Water

Samples: See attached Table 1.

Qualified Data: See attached Table 2.

Report Date Final: 9/7/06

Review By: Grace M. Willis

This quality assurance review is in accordance with the *Quality Assurance Plan (QAP)*, which is Appendix C of the Acton • Mickelson • Environmental, Inc., June 9, 2005, *Work Plan for Additional Site Assessment, Georgia-Pacific California Wood Products Manufacturing Facility.* Referenced guidance documents include U.S. EPA, January 2005, *US EPA Contract Laboratory Program, National Functional Guidelines for Superfund Organic Methods Review, Draft Final*, USEPA-540-R-04-009, U.S. EPA, October 1999, *US EPA Contract Laboratory Program, National Functional Guidelines for Organic Data Review*, EPA 540/R-99/008 and U.S. EPA, July 2002, *US EPA Contract Laboratory Program, National Functional Guidelines for Inorganic Data Review*, EPA 540/R-01/008.

ABBREVIATIONS USED IN THIS REPORT

LCS laboratory control sample MDL method detection limit

MS/MSD matrix spike/matrix spike duplicate

NA not analyzed

PAH polynuclear aromatics

PCB polychlorinated biphenyl congeners

PQL practical quantitation limit QAP quality assurance plan

RL reporting limit

RPD relative percent difference
VOCs volatile organic compounds
SVOCs semi-volatile organic compounds

°C degrees Celsius μg/l micrograms per liter %REC percent recovery Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Number: 16017.01 Sample Deliverable Group: 187109 Report Date Final: 9/7/06

ORGANIC DATA

I. SUMMARY OF PROBLEMS/ COMMENTS

Overall, the data quality is good and the data are acceptable for use. A portion of the data has been qualified due to method blank contaminations and trip blank contaminations.

Completeness: The analytical results are within the QAQ-specified ranges for data usability.

II. DATA VERIFICATION REVIEW

SAMPLE COLLECTION AND CHAIN OF CUSTODY. REMARKS: No exceptions noted.

SAMPLE RECEIPT, INCLUDING CONDITION AND PRESERVATION, REMARKS: No exceptions noted. Laboratory case narrative stated that samples were received cold and intact.

SAMPLE PREPARATION, SAMPLE CLEANUP METHOD, REMARKS: No exceptions noted. Silica gel clean-up was used for SEMI 8015B Total Extractable Hydrocarbons.

SAMPLE ANALYSIS, INCLUDING ANALYTICAL METHOD AND PROJECT SPECIFIC REPORTING LIMITS:

Method Analysis	Matrix	No.	No.	Note
		Samples	Exceptions	
8015B (TPHg)	Water	5	0	Used MDL
8015B (TPHd, motor oil)	Water	4	0	Used MDL
8082 (PCBs)	Water	4	0	Used MDL
8260B (VOCs)	Water	5	0	Used MDL
8270C (SVOCs)	Water	4	0	Used MDL
8310 (PAHs)	Water	4	0	Used MDL

REMARKS:

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III. SAMPLE HOLDING TIMES (water only)

Method Analysis	No. Samples	No. Late
8015B (TPHg)	5	0
8015B (TPHd, motor oil)	4	0
8082 (PCBs)	4	0

REMARKS:

None.

IV. LABORATORY CONTROL SAMPLES (water only)

Method Analysis	Result
8015B (TPHg)	A
8015B (TPHd, motor oil)	A
8082 (PCBs)	A
8260B (VOCs)	A
8270C (SVOCs)	A
8310 (PAHs)	A

A - Acceptable – all criteria met.

P - Provisional – some criteria not met; data useable. See remarks.

U - Unacceptable - criteria not met; data unusable. See remarks

REMARKS:

C&T will at times use the terms BS and BSD. It is equivalent to LCS & LCSD and utilized whenever there is inadequate sample volume to run MS/MSD.

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V. METHOD BLANK ANALYSIS (water only)

Method Analysis	Result
8015B (TPHg)	P
8015B (TPHd, motor oil)	P
8082 (PCBs)	A
8260B (VOCs)	P
8270C (SVOCs)	A
8310 (PAHs)	A

- A Acceptable all criteria met.
- P Provisional some criteria not met; data useable. See remarks.
- U Unacceptable criteria not met; data unusable. See remarks.

REMARKS: Method blanks were contaminated as shown below:

- 1. TPHg C6-C8 and TPHg C8-C10 were detected between the MDL and the RL in the method blank for batch 113891; samples with detections less than 5 times the blank contaminant level were qualified "u". Five samples were qualified.
- 2. Diesel C12-C16 and diesel C16-C24 were detected between the MDL and the RL in the method blank for batch 113891; samples with detections less than 5 times the blank contaminant level were qualified "u". Two samples were qualified.
- 3. Many SVOC analytes were detected between the MDL and the RL in the method blank for batch 114150; these analytes were not detected in samples at or above the RL.
- 4. Methylene chloride, a common lab solvent, was detected in the method blank at $0.5 \,\mu g/l$. and was detected between the MDL and the RL in several samples. Samples with detections less than 10 times the blank contaminant level were qualified "u". Four samples were qualified.

VI. SURROGATE SPIKE RESULTS (water only)

Method Analysis	No.	No.	No.
	Samples	Samples J	Samples R
8015B (TPHg)	5	0	0
8015B (TPHd, motor oil)	4	0	0
8082 (PCBs)	4	0	0
8260B (VOCs)	5	0	0
8270C (SVOCs)	4	0	0
8310 (PAHs)	4	0	0

REMARKS:

1. High surrogate recovery was observed for hexacosane in MW-10.4-052506 (lab #187109-004); no target analytes were detected at or above RL in the sample.

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VII. MATRIX SPIKE RESULTS (water only)

Method Analysis	No.	No.	No.
	Samples	Samples J	Samples R
8015B (TPHg)	5	0	0
8015B (TPHd, motor oil)	4	0	0
8082 (PCBs)	4	0	0
8260B (VOCs)	5	0	0
8270C (SVOCs)	4	0	0
8310 (PAHs)	4	0	0

REMARKS:

None.

VIII. MATRIX SPIKE DUPLICATE RESULTS (water only)

Method Analysis	No.	No.	No.
	Samples	Samples J	Samples R
8015B (TPHg)	5	0	0
8015B (TPHd, motor oil)	4	0	0
8082 (PCBs)	4	0	0
8260B (VOCs)	5	0	0
8270C (SVOCs)	4	0	0
8310 (PAHs)	4	0	0

REMARKS:

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IX. FIELD DUPLICATE SAMPLE RESULTS (water only)

Method Analysis	Result
8015B (TPHg)	NA
8015B (TPHd, motor oil)	NA
8082 (PCBs)	NA
8260B (VOCs)	NA
8270C (SVOCs)	NA
8310 (PAHs)	NA

- A Acceptable the same compounds were identified in the primary and duplicate samples with minor differences in concentration
- P Provisional the same compounds were identified in the primary and duplicate samples with major differences in concentration. These discrepancies could cause the data to be useful only for limited purposes.
- U Unacceptable differences were found in compound identifications in the primary and duplicate samples. These discrepancies could cause the results for this fraction to be used for limited purposes or be considered unusable.

REMARKS:

No field duplicates were collected for this sample group.

X. TRIP BLANK SAMPLE RESULTS (water only)

Method Analysis	Result
8015B (TPHg)	NA
8015B (TPHd, motor oil)	NA

- A Acceptable No contaminants above minimum detection limits; no interference with sample results.
- P Provisional Contaminants present but minimal interference with sample results.
- U Unacceptable Gross contamination, too much interference to use data for certain components or the entire fraction.

REMARKS:

Acetone and Methylene chloride were detected in the trip blank at levels between the RL and the MDL. Samples with detections less than 10 times the blank were qualified "u".

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XI. EQUIPMENT BLANK SAMPLE RESULTS

Equipment blanks were not collected. Sampling equipment consisted of dedicated tubing at each sampling point and a peristaltic pump.

XII. SUMMARY OF QUALIFIED DATA

Data that have been assigned qualifiers as part of this review are listed on the attached Table 2.

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Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

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INORGANIC DATA

I. SUMMARY OF PROBLEMS/ COMMENTS

Overall, the data quality is good and the data are acceptable for use.

Completeness: The analytical results are with the QAQ-specified ranges for data usability.

II. DATA VERIFICATION REVIEW

SAMPLE COLLECTION AND CHAIN OF CUSTODY, REMARKS: No exceptions noted.

SAMPLE RECEIPT, INCLUDING CONDITION AND PRESERVATION, FIELD FILTRATION, REMARKS:

No exceptions noted. Dissolved metal samples WERE field filtered.

SAMPLE PREPARATION, SAMPLE CLEANUP METHOD, REMARKS: No exceptions noted.

SAMPLE ANALYSIS, INCLUDING ANALYTICAL METHOD AND PROJECT SPECIFIC REPORTING LIMITS:

Method Analysis	Matrix	No.	No.	Note
		Samples	Exceptions	
EPA 6020 (metals)	Water	4	0	Used PQL
EPA 7470A (mercury)	Water	4	0	Used PQL

REMARKS:

None.

III. SAMPLE HOLDING TIMES (water only)

Method Analysis	No. Samples	No. Late
EPA 6020/7470A (metals)	4	0

REMARKS:

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IV. LABORATORY CONTROL SAMPLES (water only)

Method Analysis	Result
EPA 6020/7470A (metals)	A

- A Acceptable all criteria met.
- P Provisional some criteria not met; data useable. See remarks.
- U Unacceptable criteria not met; data unuseable. See remarks

REMARKS:

C&T will at times use the terms BS and BSD. It is equivalent to LCS & LCSD and utilized whenever there is inadequate sample volume to run MS/MSD.

V. METHOD BLANK ANALYSIS (water only)

Method Analysis	Result
EPA 6020/7470A (metals)	A

- A Acceptable no contaminants above minimum detection limits; no interference with sample results.
- P Provisional contaminants present but minimal interference with sample results.
- U Unacceptable gross contamination, too much interference to use data for certain components or the entire fraction.

REMARKS: Method blanks were contaminated as shown below: None.

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VI. MATRIX SPIKE RESULTS (water only)

Method Analysis	No.	No.	No.
	Samples	Samples J	Samples R
EPA 6020/7470A (metals)	4	0	0

REMARKS:

None.

VII. MATRIX SPIKE DUPLICATE RESULTS (water only)

Method Analysis	No.	No.	No.
	Samples	Samples J	Samples R
EPA 6020/7470A (metals)	4	0	0

REMARKS:

None.

VIII. FIELD DUPLICATE SAMPLE RESULTS (water only)

Method Analysis	Result
EPA 6020/7470A (metals)	NA

- A Acceptable the same compounds were identified in the primary and duplicate samples with minor differences in concentration
- P Provisional the same compounds were identified in the primary and duplicate samples with major differences in concentration. These discrepancies could cause the data to be useful only for limited purposes.
- U Unacceptable differences were found in compound identifications in the primary and duplicate samples. These discrepancies could cause the results for this fraction to be used for limited purposes or be considered unusable.

REMARKS:

No field duplicates were collected for this sample group.

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IX. EQUIPMENT BLANK SAMPLE RESULTS

Equipment blanks were not collected. Sampling equipment consisted of dedicated tubing at each sampling point and a peristaltic pump.

X. SUMMARY OF QUALIFIED DATA

No data was qualified in this section of the review.

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Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Name: Georgia-P Project Number: 16017.01 Sample Deliverable Group: 187109 Report Date Final: 9/7/06

TABLE 1 SAMPLES INCLUDED IN THIS QUALITY ASSURANCE REVIEW

Location	Sample ID	Sample Date	Matrix	Туре	Lab ID	Receipt Date	ID on COC
MW-7.1	MW-7.1-052506	05/25/06	water	Normal Environmental Sample	187109-01	05/26/06	MW-7.1-052506
MW-10.2	MW-10.2-052506	05/25/06	water	Normal Environmental Sample	187109-02	05/26/06	MW-10.2-052506
MW-10.3	MW-10.3-052506	05/25/06	water	Normal Environmental Sample	187109-03	05/26/06	MW-10.3-052506
MW-10.4	MW-10.4-052506	05/25/06	water	Normal Environmental Sample	187109-04	05/26/06	MW-10.4-052506
MW-7.1	MW-7.1-052506TB4	05/25/06	water	Normal Environmental Sample	187109-05	05/26/06	MW-7.1-052506TB4

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Project Name: Georgia-Pacific California Wood Products Manufacturing Facility

Project Name: Georgia-P Project Number: 16017.01 Sample Deliverable Group: 187109 Report Date Final: 9/7/06

TABLE 2 SUMMARY OF QUALIFIED DATA

Sample ID	Lab ID	Method	Analysis Date	Chemical	Result	Units	Detect Flag	Lab Qualifier	Review Qualifier	MDL	PQL
MW-7.1-052506	187109-01	8015B	5/29/06	TPHg C8-C10	7.3	μg/l	Y	J	u	4.8	50
MW-10.2-052506	187109-02	8015B	5/29/06	TPHg C6-C8	6.5	μg/l	Y	J	u	4.8	50
MW-10.2-052506	187109-02	8015B	5/29/06	TPHg C8-C10	5.4	μg/l	Y	J	u	4.8	50
MW-10.3-052506	187109-03	8015B	5/29/06	TPHg C6-C8	5.5	μg/l	Y	J	u	4.8	50
MW-10.3-052506	187109-03	8015B	5/29/06	TPHg C8-C10	6.8	μg/l	Y	J	u	4.8	50
MW-10.4-052506	187109-04	8015B	5/29/06	TPHg C6-C8	6.1	μg/l	Y	J	u	4.8	50
MW-10.4-052506	187109-04	8015B	5/29/06	TPHg C8-C10	7.1	μg/l	Y	J	u	4.8	50
MW-7.1-052506TB4	187109-05	8015B	5/29/06	TPHg C6-C8	5.0	μg/l	Y	J	u	4.8	50
MW-7.1-052506TB4	187109-05	8015B	5/29/06	TPHg C8-C10	6.0	μg/l	Y	J	u	4.8	50
MW-10.2-052506	187109-02	8015B	6/9/06	TPHd C16-C24	21	μg/l	Y	J	u	21	50
MW-10.4-052506	187109-04	8015B	6/9/06	TPHd C16-C24	22	μg/l	Y	J	u	21	50
MW-7.1-052506	187109-01	8260B	6/6/06	methylene chloride	0.3	μg/l	Y	J	u	0.2	10
MW-10.2-052506	187109-02	8260B	6/6/06	methylene chloride	0.2	μg/l	Y	J	u	0.2	10
MW-10.3-052506	187109-03	8260B	6/6/06	methylene chloride	0.3	μg/l	Y	J	u	0.2	10
MW-10.4-052506	187109-04	8260B	6/6/06	methylene chloride	0.2	μg/l	Y	J	u	0.2	10

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